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THE WONDERS OF
CREATION AND
THE SINGULARITIES
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A STUDY OF THE ILKHANID
LONDON QAZVĪNĪ

STEFANO CARBONI

EDINBURGH
University Press

To my cherished family, Maria, Giacomo and Emil

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Contents

<i>List of Figures</i>	vii
<i>Series Editor's Foreword</i>	xv
<i>Preface and Acknowledgements</i>	xvi
<i>Note to the Reader</i>	xx
INTRODUCTION	I
PART ONE	
CHAPTER 1 Al-Qazvīnī's Illustrated Text between Scientific and Narrative Literature	13
CHAPTER 2 The Illustrations of the London Qazvīnī: General Description	23
General features	23
Present condition of the illustrations	29
Colours	35
The vegetal foreground	38
CHAPTER 3 Selected Illustrations from the London Qazvīnī	48
North Jaziran/Southeast Anatolian evidence	48
Narrative illustrations	70
Distinctive animals	77
Distinctive recurrent details	85
CHAPTER 4 The London Qazvīnī in Relation to the Edinburgh al-Bīrūnī and the New York <i>Bestiary</i>	107
The Edinburgh al-Bīrūnī	107
A single illustration in the Diez Albums in Berlin	112
The New York <i>Bestiary</i>	115
CHAPTER 5 The Illustrations of the London Qazvīnī and Related <i>ʿAjāʾib al-makhlūqāt</i> Manuscripts	126
Analysis of the Table of Comparison	129

Interpretation of the Table of Comparison	146
Table of Comparison	149

PART TWO

DESCRIPTION of the London Qazvīnī by Folio	175
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CATALOGUE of the Illustrations of the London Qazvīnī	215
Key 1 Abbreviations of bibliography on flora	347
Key 2 Abbreviations of bibliography on fauna	349

<i>Bibliography</i>	400
<i>Index</i>	422

Figures

Illustrations from the Catalogue

I.1	The Animal Called 'Sinād' (cat. 273)	16
I.2	The Blind People of Zanj; The 'Sagsār' People of Zanj; The Soft-legged People of Zanj (cat. 349–351)	16
I.3	The Elephant-like People; The Horse-like People; The People with Two Faces (cat. 352–354)	17
I.4	The People with Multiple Legs; The Female People; The Human-headed Snakes; The People with Their Faces on the Chest (cat. 355–358)	18
2.1	Banana Tree (<i>mawz</i>); Orange (<i>nāranj</i>); Coconut Palm (<i>nārjīl</i>) (cat. 179–181)	25
2.2	Solomon and His Jinns (cat. 245)	25
2.3	Solomon and His Jinns (cat. 246–247)	26
2.4	Curlew (<i>karawān</i>); White Stork (<i>laqlaq</i>); Heron (<i>mālik al-ḥazīn</i>); Hoopoe Lark (<i>mukkā'</i>) (cat. 324–327)	27
2.5	Bactrian Camel (<i>ibl</i>) (cat. 259)	27
2.6	Eridanus, the River (<i>al-nahr</i>); Lepus, the Hare (<i>al-arnab</i>) (cat. 3–4)	28
2.7	Crater, the Cup (<i>al-bāṭiya</i>); Corvus, the Raven (<i>al-ghurāb</i>) (cat. 9–10)	28
2.8	Goshawk (<i>zummāj</i>); Quail (<i>summānā</i>) (cat. 300–301)	29
2.9	Grouse (<i>ṭayhūj</i>); Sparrow (<i>'usfūr</i>) (cat. 309–310)	29
2.10	Canis Major, the Greater Dog (<i>al-kalb al-akbar</i>); Canis Minor, the Lesser Dog (<i>al-kalb al-mutaqaddim</i>) (cat. 5–6)	32
2.11	The Parrots of Zābaj; The Winged People of Zābaj; The Camphor Tree of Zābaj (cat. 24–26)	32
2.12	Lycium (<i>fīlzahraj</i>); Clove (<i>qaranful</i>); Reed (<i>qaṣab</i>) (cat. 168–170)	33
2.13	Calendula (<i>adhariyūn</i>); Lemongrass (<i>idhkhīr</i>); Rice (<i>aruzz</i>); Spinach (<i>isfānāj</i>); Squill (<i>isqīl</i>) (cat. 187–191)	34
2.14	Cheetah (<i>fahd</i>) (cat. 276)	34

2.15	Gerfalcon (<i>sunqur</i>); Peregrine Falcon (<i>shāhīn</i>); Turtle Dove (<i>shifnīn</i>); Green Woodpecker (<i>shaqrāq</i>) (cat. 302–305)	35
2.16	The Cross between Dog and Wolf; The Cross between Pigeon and Ring Dove; The Giant ‘Ūj ibn ‘Anaq (cat. 359–361)	36
2.17	The Jinn Named ‘Dilhāth’; The Jinn Named ‘Shiqq’ (cat. 242–243)	37
2.18	Willow (<i>khilāf</i>); Peach (<i>khawkh</i>); Spiny Cytisus (<i>dār shayshi‘ān</i>) (cat. 141–143)	39
2.19	Thistle (<i>ushturghāz</i>); Soda Plant (<i>ushnān</i>); Absinth (<i>afsintīn</i>); Chrysanthemum (<i>uqḥuwān</i>); Flax (<i>ukshūt</i>) (cat. 192–196)	39
2.20	Donkey (<i>himār</i>) (cat. 257)	40
2.21	Wild Boar (<i>khinzīr</i>) (cat. 269)	40
2.22	Owl (<i>būm</i>) (cat. 287)	40
2.23	The Buffaloes of Rāmni; The Falcons of the Island of Silā (Korea) (cat. 29–30)	41
2.24	The People with the Face on Their Chest from the Island of Jāba (cat. 41)	41
2.25	Caraway (<i>karawiyā</i>); Coriander (<i>kuzbura</i>); Cumin (<i>kammūn</i>) (cat. 228–230)	42
2.26	Ivy or Lablab (<i>lablāb</i>); Plantago (<i>lisān al-ḥamal</i>); Caper (<i>laṣaf</i>); Mandrake (<i>luffāḥ</i>) (cat. 231–234)	42
2.27	Mole Rat (<i>khuld</i>); Musk Rat (<i>fārat al-misk</i>) (cat. 341–342)	42
2.28	The Giants of Bunān; The Lion-headed People of the Island of Aṭwarān (cat. 33–34)	43
2.29	Cypress (mistakenly named <i>shajar jawz al-hind</i> in place of <i>ṣarw</i>); Quince (<i>safarjal</i>) (cat. 149–150)	43
2.30	Sumac (<i>summāq</i>); Sandarach (<i>sandarūs</i>); The Tree Called ‘Shabāb’ (cat. 151–153)	43
2.31	Mudar Plant (‘ <i>ushar</i> ’); Gall Oak (‘ <i>afṣ</i> ’); Jujube (‘ <i>unnāb</i> ’) (cat. 160–162)	44
2.32	Pepper Tree (<i>filfil</i>); Hazelnut (<i>funduq</i>) (cat. 166–167)	45
3.1	Alexander on the Island of the Dragon (cat. 42)	49
3.2	Iblis (cat. 244)	50
3.3	Winged figure	51
3.4	The Archangel Gabriel (<i>jibrā’īl</i>); The Archangel Michael (<i>mikā’īl</i>) (cat. 13–14)	53
3.5	The Archangel Azrael (‘ <i>izrā’īl</i> ’) (cat. 15)	54
3.6	The Planet Mercury (‘ <i>utārid</i> ’) (cat. 1)	57
3.7	‘The four formae Mercurii’	60
3.8	‘The planet Mercury’	61
3.9	Black snake	66
3.10	Snake (<i>hayya</i>) (cat. 335)	68
3.11	The gate of the caravanserai of al-Khān	69

3.12	The Man from Isfahan Rescued by the Giant Bird (cat. 62–63)	71
3.13	A Story: The Lemon as an Antidote (cat. 177)	73
3.14	Lemon (<i>laymūn</i>) (cat. 176)	73
3.15	The Animal Called ‘Mi‘rāj’ on the Island of the Dragon; The Human-headed Fish; The Fish Swimming on the Surface of the Sea; The Fish That Is Able to Set Fire; The Flying Fish; A Fish (cat. 43–48)	74
3.16	The Jinn That Looks Like a Dog; The Jinn That Looks Like an Ape (cat. 248–249)	75
3.17	The Man and the Jinn That Turns into a Serpent and a Camel; The Man and the Girl Kidnapped by a Jinn (cat. 250–251)	76
3.18	The Man and the Girl Kidnapped by a Jinn (cat. 252)	77
3.19	The Siamese Twins from Yemen; The Human-headed Rook (cat. 364–366)	77
3.20	The Human-headed Rook; The Horned Horse and the Winged Fox (cat. 367–368)	78
3.21	The Sea Dragon (cat. 90)	79
3.22	Sea Dragon (<i>tinnīn</i>) (cat. 92)	79
3.23	Dragon (<i>thu‘bān</i>) (cat. 332)	80
3.24	The Animal Called ‘Šannāja’ (cat. 339)	82
3.25	The Tree Dwellers of the Island of Rāmni; The Rhinoceros of Rāmni (cat. 27–28)	83
3.26	Rhinoceros (<i>karkadann</i>) (cat. 277)	84
3.27	Dog (<i>kalb</i>) (cat. 278)	84
3.28	The Island of the Informing Animal Called ‘Jassāsa’ (cat. 64)	85
3.29	The Island of the Sleep-inducing Trees and Flowers; The Island of the Church of the Crow (cat. 75–76)	86
3.30	The Island of the Dog-headed People (cat. 70)	87
3.31	The Island of the Talismanic Statue on the Tower (cat. 74)	88
3.32	Minaret of the Yaqutiye Madrasa	89
3.33	Folding chair	90
3.34	The People of Gog and Magog; The ‘Munsuk’ People (cat. 344–345)	90
3.35	The Images of Mount Bisutūn (cat. 118)	91
3.36	Steinbock (<i>ayyil</i>) (cat. 263)	91
3.37	Jackal (<i>ibn āwā</i>) (cat. 264)	92
3.38	Weasel (<i>ibn ‘irs</i>) (cat. 265)	93
3.39	Pear (<i>kummathrā</i>); Frankincense Tree (<i>lubān</i>) (cat. 173–174)	93
4.1	‘Amr ibn al-‘Ās and the River Nile (cat. 120)	108
4.2	Dancer and Musicians at the Spring of Īlābistān (cat. 121)	108
4.3	‘Inviting the angels to descend from the sky’	109

4.4	Orion (<i>al-jabbār</i>) (cat. 2)	110
4.5	The Singer Ibrāhīm and the Jinn Disguised as an Old Man (cat. 254)	112
4.6	'The singer Ibrāhīm and the jinn disguised as an old man'	113
4.7	Ebony (<i>abanūs</i>); Myrtle (<i>ās</i>) (cat. 123–124)	116
4.8	The Fish Called 'Sayalān'; Dugong (<i>aṭum</i>); A Species of Crab; Giant Snakes (cat. 35–38)	118
4.9	The Sheep of the Island of Jāliṭa; The Island of the Monastery (cat. 77–78)	118
4.10	The Island of the Sheep (cat. 88)	118
4.11	Chestnut (<i>shāhballūt</i>); Sandalwood (<i>ṣandal</i>); Pine (<i>ṣanawbar</i>) (cat. 154–156)	119
4.12	Almond (<i>lawz</i>) (cat. 175)	119
4.13	Syrian Christ-thorn (<i>nabīq</i>); Date Palm (<i>nakhl</i>) (cat. 182–183)	120
4.14	Rose (<i>ward</i>); Jasmine (<i>yasmīn</i>) (cat. 184–185)	120
4.15	Common Marten (<i>dalaq</i>) (cat. 271)	121
4.16	Hyaena (<i>dabu'</i>) (cat. 274)	121
4.17	Leopard (<i>namr</i>) (cat. 279)	121
4.18	Swallow (<i>khutṭāf</i>) (cat. 292)	122
4.19	Crane (<i>gharnīq</i>); Grebe or Diver Bird (<i>ghawwās</i>); Collared Turtle Dove (<i>fākhita</i>) (cat. 315–317)	122
5.1	Centaurus, the Centaur (<i>qintawrus</i>); Lupus, the Beast (<i>al-sub'</i>) (cat. 11–12)	129
5.2	The Angels around God (<i>al-karūbiyyūn</i>) (cat. 16)	130
5.3	The Angels of the First Heaven (cat. 17)	130
5.4	A Custom of the Persian New Year's Day (cat. 18)	131
5.5	The Rainbow (<i>qaws quzaḥ</i>) (cat. 20)	131
5.6	The Pirates of the Island of Jāshik (cat. 52)	132
5.7	Collecting Ambergris near the Island of Kandūlāwūrī; The Fish That Shakes the Water; The Fish Called 'Asyūr' (cat. 53–55)	133
5.8	The Fish Called 'Juwāf'; Red Mullet (<i>barāstūj</i>); Shark (<i>kawsaj</i>); The Sea Dragon (cat. 56–59)	133
5.9	The Snake of the Island of Noise; The Island of the Blinded Pygmies (cat. 68–69)	133
5.10	The Island of the Soft-legged People (cat. 71)	134
5.11	Catfish (<i>jarri</i>); Lamprey (<i>julkā</i>); Dolphin (<i>dulfin</i>); The Fish Called 'Dhūbyān' (cat. 93–96)	134
5.12	Leech (<i>'alaq</i>) (cat. 109)	135
5.13	Hippopotamus (<i>faras al-mā'</i>) (cat. 111)	135
5.14	Beaver (<i>qunduz</i>) (cat. 113)	135
5.15	The Sleepers of Mount Raqīm (cat. 119)	136
5.16	Hārūt and Mārūt in the Well of Babel (cat. 122)	136
5.17	Olive (<i>zaytūn</i>) (cat. 148)	137

5.18	Lentiscus (<i>dirw</i>); Tamarisk (<i>tarfā'</i>); Juniper (<i>ar'ar</i>) (cat. 157–159)	138
5.19	Camphor Tree (<i>kāfūr</i>); Grape Vine (<i>karm</i>) (cat. 171–172)	139
5.20	Manna Plant (<i>hājj</i>); Thyme (<i>hashā'</i>); Cress (<i>hurf</i>); Cardoon or Artichoke (<i>harshaf</i>); Harmel (<i>harmal</i>) (cat. 213–217)	139
5.21	Marjoram (<i>marzanjūsh</i>); Nard or Valerian (<i>nārdīn</i>); Anise (<i>nānkhawāh</i>); Narcissus (<i>narjis</i>) (cat. 238–241)	139
5.22	The Shepherd and the Jinn Who Made a Wolf Free His Sheep (cat. 253)	140
5.23	Goat (<i>ma'z</i>) (cat. 261)	141
5.24	Hare, Rabbit (<i>arnab</i>) (cat. 266)	142
5.25	Caracal (<i>'anaq</i>) (cat. 275)	142
5.26	Goose (<i>awazz</i> , <i>iwazz</i>) (cat. 282)	142
5.27	Pheasant (<i>tadruj</i>) (cat. 288)	143
5.28	Bat (<i>khuffāsh</i>) (cat. 293)	143
5.29	Rooster (<i>dīk</i>) (cat. 295)	143
5.30	Turtle Dove (<i>qumrī</i>); The Phoenix (<i>qūqīs</i>); Crane (<i>kurkī</i>) (cat. 321–323)	144
5.31	Snail (<i>halazūn</i>) (cat. 334)	145
5.32	Gecko (<i>sāmm abraṣ</i>) (cat. 337)	145
5.33	The People near Alexander's Wall; The People of Sumatra; The People of Rāmnī (cat. 346–348)	145
5.34	The Giant from Bulghār; The Giant from Mosul (cat. 362–363)	145
Col. 1	Argo Navis, the Ship (<i>al-safīna</i>) (cat. 7)	218
Col. 2	Hydra, the Dragon (<i>al-shujā'</i>) (cat. 8)	218
Col. 3	Fīrūz Makes It Rain (cat. 19)	223
Col. 4	The Tree Dwellers of Zābaj (Sumatra) (cat. 21)	224
Col. 5	The Winged Cat, the Civet Cat and the Antelope of Zābaj; The Large Snakes and the Monkeys of Zābaj (cat. 22–23)	224
Col. 6	The Archipelago of Wāqwāq (cat. 31)	227
Col. 7	The Beautiful People of the Island of Bunān (Nias) (cat. 32)	227
Col. 8	The Long-haired People of the Island of Bartā'iyīl (cat. 39)	229
Col. 9	The Dog-headed People of the Island of the Palace (cat. 40)	230
Col. 10	The Fish That Provides Invisible Ink; The Snake-headed Green Fish; The Circular Fish Called 'Gāw Māhī' (cat. 49–51)	232
Col. 11	The Green Fish with a Proboscis; A Circular Fish with a Sting [Stingray?] (cat. 60–61)	235
Col. 12	The Fish That Provides Mother-of-Pearl; The Fish That Turns into Cotton; The Cow Fish (cat. 65–67)	237

Col. 13	Sawfish (<i>minshār</i>) (cat. 72)	239
Col. 14	Whale (<i>bāl</i>) (cat. 73)	240
Col. 15	The Sea Animal That Clings to the Rock (cat. 79)	242
Col. 16	The Fish Called the 'Old Jew' (cat. 80)	242
Col. 17	The Mule Fish (cat. 81)	243
Col. 18	Flounder (<i>hūt mūsā wa yūsha'</i>) (cat. 82)	243
Col. 19	The Fish That Keeps Moving When Cooked; Swallow Fish (<i>khutṭāf</i>); The Fish as Large as a Minaret; The Fish That Survives on Land (cat. 83–86)	244
Col. 20	The Island of the Snakes (cat. 87)	245
Col. 21	The Girl inside the Body of a Large Fish (cat. 89)	246
Col. 22	Sea Hare (<i>arnab al-baḥr</i>) (cat. 91)	246
Col. 23	Torpedo (<i>ra'āda</i>); Pilot Fish (<i>zamūr</i>); Crab (<i>saratān</i>) (cat. 97–99)	249
Col. 24	Lobster (<i>saratān al-baḥr</i>); Skink (<i>saqanqūr</i>) (cat. 100)	249
Col. 25	Turtle and Tortoise (<i>sulaḥfā</i>) (cat. 102)	250
Col. 26	Turtle and Tortoise (<i>sulaḥfā</i>); Fish (<i>samak</i>) (cat. 103–104)	250
Col. 27	Carp (<i>shabbūt</i>); Ray or Skate (<i>shifnīn</i>); Anchovy (<i>ṣīr</i>); Frog (<i>difdi'</i>) (cat. 105–108)	251
Col. 28	A Species of Turtle (<i>ghitā'</i>) (cat. 110)	252
Col. 29	A Cetacean (<i>qaṭā</i>) (cat. 112)	253
Col. 30	Sea Urchin (<i>qunfudh al-mā'</i>) (cat. 114)	254
Col. 31	Narwhal (<i>qūqī</i>) (cat. 115)	254
Col. 32	Otter (<i>kalb al-mā'</i>) (cat. 116)	255
Col. 33	Shark (<i>kawsaj</i>) (cat. 117)	255
Col. 34	Citron (<i>utruij</i>); Plum (<i>ijjās</i>); Melia Tree (<i>azādarakht</i>) (cat. 125–127)	260
Col. 35	Gum Arabic Tree (<i>umm ghaylān</i>); Moringa (<i>bān</i>); Turpentine Tree (<i>buṭm</i>) (cat. 128–130)	261
Col. 36	Balsam Tree (<i>balasān</i>); Oak (<i>ballūt</i>); Apple (<i>tuffāh</i>) (cat. 131–133)	262
Col. 37	Spruce (<i>tannūb</i>); Mulberry (<i>tūth</i>) (cat. 134–135)	263
Col. 38	Fig (<i>tīn</i>); Sycamore Fig (<i>jummayz</i>) (cat. 136–137)	263
Col. 39	Walnut (<i>jawz</i>); The Tree Called 'Khusraw Dār'; Castor Oil Plant (<i>khirwa'</i>) (cat. 138–140)	264
Col. 40	Elm (<i>dardār</i>); Plane (<i>dulb</i>); Laurel (<i>dahmast</i>) (cat. 144–146)	266
Col. 41	Pomegranate (<i>rummān</i>) (cat. 147)	267
Col. 42	Service Tree (<i>ghubayrā</i>); Poplar (<i>gharab</i>); Pistachio (<i>fustuq</i>) (cat. 163–165)	272
Col. 43	Apricot (<i>mishmish</i>) (cat. 178)	276
Col. 44	Pimpernel (<i>ādhān al-fār</i>) (cat. 186)	279
Col. 45	Balm (<i>bādhraṇjabwiya</i>); Basil (<i>bādhruj</i>); Aubergine (<i>bādhinjān</i>); Fava Bean (<i>bāqilā</i>) (cat. 197–200)	282

Col. 46	Maidenhair Fern (<i>barsiyāwashān</i>); Mugwort (<i>baranjāsaf</i>); Onion (<i>baṣal</i>) (cat. 201–203)	283
Col. 47	Melon (<i>biṭṭikh</i>); Violet (<i>banafsaj</i>) (cat. 204–205)	283
Col. 48	Adonis (<i>bahār</i>); Aconite (<i>bīsh</i>); Lupine (<i>tirmis</i>); Garlic (<i>thūm</i>) (cat. 206–209)	284
Col. 49	Millet (<i>jāwars</i>); Rocket (<i>jirjir</i>); Carrot (<i>jazar</i>) (cat. 210–212)	285
Col. 50	Caltrops (<i>hasak</i>); Fenugreek (<i>ḥulba</i>); Chickpea (<i>himmaṣ</i>); Melilot (<i>ḥandaqūqī</i>) (cat. 218–221)	287
Col. 51	Colocynth (<i>hanṣal</i>); Wheat (<i>hintā</i>); Mallow (<i>khubbāzī</i>) (cat. 222–224)	289
Col. 52	Hellebore (<i>kharbaq</i>); Mustard (<i>khardal</i>); Lettuce (<i>khass</i>) (cat. 225–227)	289
Col. 53	Lubia Bean (<i>lūbiyā</i>); Water Lily (<i>laynāfir</i>); Mullein (<i>māhizahraj</i>) (cat. 235–237)	292
Col. 54	Horse (<i>faras</i>); Mule (<i>baghl</i>); Onager (<i>himār al-waḥsh</i>) (cat. 255–256, 258)	300
Col. 55	Cow (<i>baqar</i>); Gazelle (<i>zabī</i>); Lion (<i>asad</i>) (cat. 260, 262, 267)	303
Col. 56	Unicorn (<i>harīsh</i>) (cat. 268)	306
Col. 57	Bear (<i>dubb</i>) (cat. 270)	307
Col. 58	Wolf (<i>dhi'b</i>) (cat. 272)	308
Col. 59	Bishop Bird or Finch [?] (<i>abū barāqish</i>); Nightingale (<i>abū harūn</i>) (cat. 280–281)	312
Col. 60	Goshawk (<i>bāzī</i>) (cat. 283)	313
Col. 61	Sparrow Hawk (<i>bāshiq</i>); Parrot (<i>babbaghā'</i> , <i>babghā'</i>) (cat. 284–285)	314
Col. 62	Bulbul (<i>bulbul</i>) (cat. 286)	314
Col. 63	Houbara Bustard (<i>hubārā</i>) (cat. 289)	316
Col. 64	Kite (<i>hidā'a</i>) (cat. 290)	316
Col. 65	Pigeon (<i>hamām</i>) (cat. 291)	317
Col. 66	Francolin (<i>durrāj</i>) (cat. 294)	318
Col. 67	Hen (<i>dajāja</i>) (cat. 296)	319
Col. 68	Egyptian Vulture (<i>rakhama</i>) (cat. 297)	320
Col. 69	Rook (<i>zāgh</i>) (cat. 298)	320
Col. 70	Starling (<i>zurzūr</i>) (cat. 299)	321
Col. 71	Golden Oriole (<i>ṣāfir</i>); Saker Falcon (<i>ṣaqr</i>); Peacock (<i>tāwūs</i>) (cat. 306–308)	323
Col. 72	Eagle (<i>uqāb</i>) (cat. 311)	325
Col. 73	Magpie (<i>ʿaqʿaq</i>) (cat. 312)	325
Col. 74	The Bird Called "Anqā" (cat. 313)	326
Col. 75	Crow (<i>ghurāb</i>) (cat. 314)	327
Col. 76	Partridge (<i>qabj</i>); Crested Lark (<i>qunbura</i>); Sandgrouse (<i>qaṭā</i>) (cat. 318–320)	329
Col. 77	Vulture (<i>nasr</i>); Ostrich (<i>naʿāma</i>) (cat. 328–329)	332
Col. 78	Hoopoe (<i>hudhud</i>) (cat. 330)	333
Col. 79	Martin [?] (<i>waṭwāt</i>) (cat. 331)	334

Col. 80	Chameleon (<i>hirbāʾ</i>) (cat. 333)	335
Col. 81	Earthworms (<i>kharāṭīn</i>) (cat. 336)	336
Col. 82	Tortoise or Turtle (<i>sulahfā</i>) (cat. 338)	337
Col. 83	Mouse (<i>fār</i>) (cat. 340)	338
Col. 84	Monitor Lizard (<i>waral</i>) (cat. 343)	339

Other illustrations

3.3	Winged figure above the taller grotto at Tāq-i Bustān	51
3.7	'The four formae Mercurii' from a manuscript of <i>Picatrix</i> dated 1459	60
3.8	'The planet Mercury' from an Armenian treatise on magic, astrology and the calendar dated 1712	61
3.9	Black snake at the entrance of the mausoleum of Shaykh 'Ādī in the Lalish Valley, photograph taken early 1920s	66
3.11	The gate of the caravanserai of al-Khān near Sinjar, Iraq, thirteenth century	69
3.32	Minaret of the Yaqutiye Madrasa in Erzurum, dated 1310	89
3.33	Folding chair, thirteenth to fourteenth century	90
4.3	'Inviting the angels to descend from the sky' or 'A king celebrates Mihrjan', from a manuscript dated 1307	109
4.6	'The singer Ibrāhīm and the jinn disguised as an old man', early fourteenth century	113

Series Editor's Foreword

'Edinburgh Studies in Islamic Art' is a new venture that offers readers easy access to the most up-to-date research across the whole range of Islamic art. Building on the long and distinguished tradition of Edinburgh University Press in publishing books on the Islamic world, it is intended to be a forum for studies that, while closely focused, also open wide horizons. Books in the series will, for example, concentrate in an accessible way on the art of a single century, dynasty or geographical area; on the meaning of works of art; on a given medium in a restricted time frame; or on analyses of key works in their wider contexts. A balance will be maintained as far as possible between successive titles, so that various parts of the Islamic world and various media and approaches are represented.

Books in the series are academic monographs of intellectual distinction that mark a significant advance in the field. While they are naturally aimed at an advanced and graduate academic audience, a complementary target readership is the worldwide community of specialists in Islamic art – professionals who work in universities, research institutes, auction houses and museums – as well as that elusive character, the interested general reader.

Professor Robert Hillenbrand

Preface and Acknowledgements

This work represents the final chapter in a professional and personal journey that began in 1987 when I moved to London and subsequently enrolled in the doctoral programme of the School of Oriental and African Studies at London University. At the time, with an Italian *laurea* in Arabic and Islamic art under the mentorship of the late Professor Ernst Grube and an interest in illustrated manuscripts of scientific and astrological nature, I was encouraged by my mentor to research the text and illustrations of al-Qazvīnī's '*Ajā'ib al-makhlūqāt*', the study of which had been thus far largely neglected by scholars in the field of Islamic art.

After diligently studying a myriad later manuscripts listed in catalogues, to my true amazement and excitement I was presented one day by Peter Stocks, the then Librarian in the Oriental manuscripts department of the British Library, with a recent acquisition (1983) which had been in the Conservation department for a few years and had just become available to interested scholars. This was my first glance at the 'London Qazvīnī' and it became immediately apparent that it constituted an important late thirteenth- or early fourteenth-century illustrated copy of the text and very likely the second earliest known copy after the so-called Munich Qazvīnī. The decision to study the manuscript in depth as the monographic subject for my doctoral dissertation was an easy one and I am grateful to this day to the late SOAS Professor Géza Fehérvári for enthusiastically supporting my choice and allowing me to publish a brief introduction of the manuscript in Ernst Grube's and Eleanor Sims' periodical *Islamic Art* (1988–9) so that I could establish intellectual property on the specific subject. I graduated in 1992 under the supervision of Professor Geoffrey King; my attentive examiners were Professor Michael Rogers from SOAS and Professor Robert Hillenbrand from Edinburgh University.

In the same year I became a junior curator in the Department of Islamic Art at The Metropolitan Museum of Art and, after a short-lived attempt to turn the dissertation into a published work, my professional horizons expanded and changed, leading to a hectic and fully satisfying curatorial career that allowed me to publish, exhibit,

curate and teach broadly. My SOAS dissertation, however, ended up on the classic back burner.

When I left New York in 2008 to take up the position of Director and CEO of the Art Gallery of Western Australia I was hoping to be able to maintain a small presence in my cherished field of Islamic art, but I never imagined that I would be encouraged to embark upon the task of revising my 1992 dissertation and turn it into the present book. I am forever indebted to Robert Hillenbrand for suggesting Edinburgh University Press contact me in early 2010 with what I thought at the time was a bizarre idea and an unattainable task. Not only had almost two decades elapsed, but things were made impractical by my demanding schedule of intense long days at work, evening functions and frequent travel as well as limited access to Islamic art libraries and other essential resources in Perth, let alone a family with young children at home. It was only a couple of years later that I felt comfortable enough to commit to the task, which I accomplished through many starts, spurts and stops. Needless to say, I am delighted to see this work come to fruition.

The challenges of turning the dissertation into a useful, worthwhile and informative book for its readers – in the great majority colleagues and students in the field of Islamic art – and a positive contribution to the field were varied. Although this is a monographic work and its essential aim is to present and study the London Qazvīnī in detail and place it in the appropriate context for a better understanding of book illustration in the Ilkhanid period at the turn of the fourteenth century, important conceptual art historical and literary studies centred around al-Qazvīnī and his *‘Ajā’ib al-makhlūqāt* have been produced since my 1992 dissertation thanks to the efforts in particular of Persis Berlekamp (University of Chicago) and Syrinx von Hees (Orient-Institut, Beirut). Chapter 1 incorporates and summarises my thoughts on these recent studies and tries to place the London Qazvīnī into a broader and more theoretical framework, acting as a sort of introduction to the analysis of the manuscript that follows. This chapter provides the core of the revision, since the manuscript itself to my knowledge has not been the subject of another thorough individual analysis since my doctoral work in 1992.

Another important update relates to the large body of work that has appeared in the field of thirteenth- and fourteenth-century book illustration, both Arabic and Persian, in the past two decades. Although rarely directly addressing specific issues related to the London Qazvīnī, studies and editing efforts in particular by Sheila Blair, Moya Carey, Anna Contadini, Robert Hillenbrand, Bernard O’Kane, Karin Rührdanz, Barbara Schmitz, Eleanor Sims and Elaine Wright have all contributed to broaden my horizons, knowledge and understanding of illustrated manuscript production from that period. Given the tyranny of distance and lack of resources in Perth, with only two brief and intense opportunities for research in London,

I must thank Colin Baker at the British Library for allowing me to 'reconnect' with the London Qazvīnī at short notice as well as Melanie Gibson and Ladan Akbarnia for their help with research and bibliographic material across the continents. It is also amazing how online publications and technology have developed in the past twenty years so that I could gain access to primary sources through entirely digitised manuscripts (such as the Munich Qazvīnī) as well as articles, periodicals, symposium proceedings and books. When all the above failed, Amazon.com was a faithful and reliable tool!

This work also has a few limitations, for which of course I take responsibility. One of them is that the task of updating the strictly scientific literature on the subjects of geography, astronomy, zoology, botany and mineralogy would have greatly delayed this publication. Being just an amateur in these scientific fields, I remember well the amount of research and help I needed at the time in order to offer the most satisfactory identification for the innumerable places, animals, plants and stones listed in al-Qazvīnī's text. I believe that the work done for the 1992 dissertation is still relevant and adequate, therefore I kept it largely unchanged and did not dig through the relevant literature published since then.

A second limitation is that the British Library's Conservation department has not performed a paper, pigment, ink and overall scientific analysis of the physical aspects of the London Qazvīnī, which would have enriched the description and possibly unveiled interesting and useful details. The physical description of the manuscript is therefore based on naked-eye, magnified observation I performed at the time with the help of conservators and tested again during my last visit in 2012. Published studies since 1992 have been very helpful for a better understanding of the physical composition of the London Qazvīnī, especially the recent detailed description of another British Library manuscript, the *Kitāb naʿt al-ḥayawān* (Contadini 2012). I hope that reviewers will critically address further omissions in this book.

At EUP, I wish to acknowledge the great professionalism of the many persons I worked with in the virtual world across the continents, yet unable to meet them in person: Nicola Ramsey, Head of Editorial; James Dale, Commissioning Editor; Rebecca Mackenzie, Project Manager; Michelle Houston, Ellie Bush and Jenny Peebles, Assistant Commissioning Editors; and Eddie Clark, Managing Desk Editor. My warmest thanks go to copy-editor Cathy Falconer for her efficiency and eagle-eye.

Having worked on this project mostly sitting in my office in Perth, my sincere thanks go to all those colleagues I had a 'silent' conversation with while reading their recent efforts. It was also nostalgic and sometimes saddening to go over the acknowledgements of my 1992 dissertation: *'The writer is especially grateful to his supervisor, Dr. Geoffrey King, who was ready to offer his scholarly advice during*

the preparation of this thesis. [. . .] The writer is grateful for their help and advice, and their interest in his work to: Dr. Dieter Sturm and Dr. Karin Rühdanz of Halle University; Dr. Alma Giese; Professor Roy Mottahedeh of Harvard University; Dr. Jan Jaap de Ruiter of the Katholieke Universiteit Brabant, Tilburg; Professor Michael Rogers, Professor Harry Norris and Mr. Alexander Morton of the School of Oriental and African Studies; Ms. Anna Contadini; Professor Robert Hillenbrand of Edinburgh University; Dr. David James; Professor Ernst Grube; Dr. Eleanor Sims; Dr. ‘Abdullah ‘Ali Yahya al-Udhari; Dr. Patricia Baker; Mr. Peter Stocks of the British Library; Mr. John Picton, Chairman of the Department of Art and Archaeology, School of Oriental and African Studies; Mr. Paul Fox, photographer, at the School of Oriental and African Studies. In the notes to the thesis the writer has also acknowledged the contribution of: Dr. Hans Caspar Graf von Bothmer of the Universität des Saarlandes; Dr. V. Nersessian and Mr. Hugh Goodacre of the British Library; Mr. John Burton of the Oriental Conservation Studio of the British Library; Mr. Nabil Saidi of Sotheby’s, London; Mr. Don Baker, conservator and restorer of manuscripts. Thanks are also due to Dr. Filiz Çağman, director of the Topkapı Sarayı Museum Library, and to her staff; the writer is also grateful to the staff of the Süleymaniye Library, of the University Library, of the Türk ve İslâm Eserleri Museum in Istanbul, and of the University Library in Edinburgh. [. . .]’ The great majority of the colleagues mentioned above do not belong to the same institution or are now retired, and a few of them have sadly passed away since 1992, but I’m still as grateful to them today as I was at the time. One person I ought to acknowledge today and should have done in 1992 is Elizabeth Lambourn (De Montfort University, Leicester).

Finally, I am thankful to my staff at the Art Gallery of Western Australia, in particular Giselle Baxter, who understood that my open-door policy needed to be limited to regular working hours and that 5.00pm represented the moment when I needed to focus on my own work. Sophie Davidson was also invaluable in helping with photographic and copyright issues.

Lastly, although sometimes puzzled and amused that I wished to spend even longer hours at my desk to write another book, my two young sons Giacomo and Emil were fully supportive, as was as always my beloved wife Maria, who I am sure was neither puzzled nor amused.

Note to the Reader

The transliteration follows the system of the *International Journal of Middle East Studies* (IJMES) for both Arabic and Persian, with minor variations. Arabic and Persian words that are now in use in the English language (such as *qadi*, *tiraz*) have been left without transliteration, the less common among them indicated in italics.

The *nisba* (the adjective denoting the place of descent or family origin) of the author of the manuscript that forms the subject of this study, Zakariyā ibn Muḥammad ibn Maḥmūd al-Qazvīnī, as well as the abbreviations used throughout to mention manuscripts containing the same text (the London Qazvīnī, the Munich Qazvīnī) are transliterated in the Persian form (Qazvīnī rather than the Arabic Qazwīnī) after the most common transliteration of the modern Iranian city of Qazvin.

With the exception of the abbreviations listed in Keys 1 and 2 for the bibliography cited in the notes referring to the identification of flora and fauna in the Catalogue in Part Two, an effort has been made to avoid abbreviations and acronyms throughout the main text and in the notes. The odd BL (British Library), BM (British Museum) and TKS (Topkapı Sarayı Museum Library) may however appear.

Introduction

THE SUBJECT OF this book is a single manuscript of unusual importance and interest acquired by the Department of Oriental Manuscripts of the British Library in 1983 (Or. 14140). The London Qazvīnī – as it will be referred to throughout the present work – is an illustrated Arabic copy of al-Qazvīnī's *ʿAjāʾib al-makhlūqāt wa gharāʾib al-mawjūdāt* ('The Wonders of Creation and the Oddities of Existing Things'). When purchased by the British Library the manuscript was in poor condition and it was in the hands of conservators until May 1986 when it became available for study. After restoration, the folios have not been bound in a single volume but are preserved in individual mats.

The manuscript is mutilated and consists of 135 detached folios, corresponding to about two thirds of the original codex. There is no colophon, even though the text proper concludes on the last folio of the manuscript (folio 135v); consequently, the name of the copyist, the date and the production place of the London Qazvīnī remain unknown. Yet, a study of its miniatures leaves little doubt that the codex was copied and illustrated around the turn of the fourteenth century. This dating is important for the history both of Arabic literature and of Islamic miniature painting, since the manuscript may be considered the second earliest copy after a well-known codex in the Munich Staatsbibliothek which was produced during its author's lifetime in 678/1280 (Cod. Ar. 464, the so-called Munich Qazvīnī, as it will be referred to hereafter).

As is commonly the case for copies of the *ʿAjāʾib al-makhlūqāt*, the London Qazvīnī is lavishly illustrated. The Catalogue of the illustrations in Part Two includes 368 paintings out of the estimated original c. 520.

This book is divided into two main sections. Part One includes chapters which describe, study and interpret the most significant illustrations in the London Qazvīnī and place this monographic study into the current discussion on the early illustrated copies of this text. It also includes an analysis of the manuscript's illustrations in the framework of Ilkhanid-period painting, that is, relevant codices produced between the second half of the thirteenth century and the first

half of the fourteenth in the areas ruled by the Ilkhanids, or Mongols of Iran. Part Two contains a physical Description by folio of the manuscript and a complete Catalogue of its illustrations. Although this work is mainly concerned with the study of the paintings of the manuscript from an art historical point of view (Part One), emphasis should be given to the relevance of Part Two, since no complete English translation of the *ʿAjāʾib al-makhlūqāt* exists and no critical edition of this complex text has ever been completed in any language. The literature on this subject is mainly in German and published between 1868 and 1920 but it has recently received renewed and serious scholarly attention.¹ The Catalogue, although focused on the paintings, also includes relevant lines of critically edited translation related to each illustration. The geographical place-names and the scientific subjects of the vegetal and animal kingdoms have been identified according to specialised literature. It is hoped that the Catalogue may be helpful for future efforts towards a critical edition of the whole text of al-Qazvīnī in English, which is also needed by scholars of Islamic book illustration, since the *ʿAjāʾib al-makhlūqāt* is one of the most common texts in libraries collecting oriental manuscripts.

As mentioned above, the colophon of the London Qazvīnī is missing although this codex can safely be added to the small group of extant illustrated manuscripts from the Ilkhanid period. The painting tradition that developed under the Ilkhanids is still imperfectly understood. Consequently, the main aim of this book is both to present in detail the London Qazvīnī and to fit its suggested production into a specific time and place, supporting the proposed argument with as much evidence as possible.

As argued particularly in Chapter 4, there is little doubt that the London Qazvīnī was copied and illustrated at the turn of the fourteenth century. Its relationship to the New York *Bestiary* of the last decade of the thirteenth century and to the Edinburgh al-Bīrūnī of AD 707/1307 AH allows this manuscript to be placed with confidence between or around these two dates.

The issue of the place of production of the London Qazvīnī and its illustrations is far more complex. An analysis of the general background against which early Qazvīnī manuscripts were produced takes as a point of departure the recent perceptive work by Persis Berlekamp.² It is also argued that, although the illustrations of the manuscript show different artistic influences, there are certain elements which give unity and homogeneity to the codex. In addition to stylistic elements, these also include the constant use of the same pigments and colours throughout the manuscript and the recurrence of the same types of vegetal foregrounds in different sections of the codex. Many of the paintings have been heavily repaired with paper patches and have suffered damage over the centuries, but there is no doubt that all the illustrations are basically original and were not added later, and that they all belong to the same period.

It is also evident that the place of production – the scriptorium or atelier where the London Qazvīnī was planned, copied and illustrated – is one and the same for the whole manuscript. The quality of paper, which is identical for all pages, the single calligraphic hand from beginning to end and the illustrations themselves suggest that the process of production of the codex was continuous and did not suffer long interruptions. However, it is unfeasible to establish the length of production of the London Qazvīnī given the unusually large number of illustrations (c. 520 in the reconstructed manuscript; see Chapter 5).

The London Qazvīnī does not seem to be a royal manuscript as its opening page is far from sumptuous and there is no special dedication. However, its large dimensions, its ambitious illustrative cycle, and the fine quality of many of its illustrations – which now seem poorer than they were once because of the damage they have suffered – all suggest that the atelier where it was produced must have been well-established. In addition, it can also be hypothesised that the commissioner of the manuscript was wealthy and curious about scientific, encyclopaedic and *ʿajāʾib* literature, and keen to experiment with the illustration of new texts like this work, which had been composed by al-Qazvīnī only two or three decades earlier.

We see in the discussion of the vegetal foregrounds in Chapter 2 that at least three different landscape painters must have worked on the London Qazvīnī. This is confirmed in Chapter 3 where different artistic styles have also been postulated. The paintings discussed in Chapter 4 are strictly related to the Edinburgh al-Bīrūnī and reveal a dependence on the tradition of painting of the first half of the thirteenth century which is generally associated with Mesopotamia and especially with Baghdad. The illustrations dealt with in Chapter 3 show how typical throne scenes, revealing a Seljuq influence, are also present in the London Qazvīnī; these scenes are usually linked to the town of Mosul in the North Jazira in the first half of the thirteenth century. In the same chapter, the illustrations of the planet *ʿUṭārid*, of the knotted dragon and of the archangels demonstrate how a strong Anatolian element must be added to the Mesopotamian and the North Jaziran.

It is hard to believe that a single but eclectic painter could have produced such diversely influenced paintings, thus reinforcing the theory of an established workshop in which several painters were educated in different traditions, those usually attributed to the Mesopotamian, the North Jaziran and the Anatolian areas. These artists were called to the atelier to contribute to the illustrative cycle of the London Qazvīnī. That at least three different painters were hired to illustrate a manuscript which necessitated more than 500 miniatures is not surprising. The ‘Mesopotamian’ painter, who is suggested in Chapter 4 to be also one of the contributors to the Edinburgh al-Bīrūnī, was the most skilful craftsman of the team and the artist who produced the best illustrations in the London Qazvīnī.

The presence of painters from different artistic traditions suggests that they moved from town to town within the Ilkhanid kingdom and would settle at certain places where they were employed in various ateliers. Although we do not know from the available sources about any individual artistic personalities during this period, the concept of the craftsman-painter in search of employment moving from town to town is entirely plausible.³

The production centre of the London Qazvīnī, which could employ at least three painters and one calligrapher, must have been well-established and able to attract artists coming from different places. Consequently, it is in a large centre rather than in a provincial town that the place of production of the London Qazvīnī should be sought.

Between the last two decades of the thirteenth century and the first two of the fourteenth, the main cities of the Ilkhanids were Baghdad and Mosul in Iraq, and Tabriz, Maragha and Hamadan in Iran. The importance of towns such as Diyarbakr and Mardin in Anatolia in this period is not clear and little is known of their book production.

The number of illuminated and illustrated manuscripts of this period whose colophons indicate the place of production is very small. As for illuminated manuscripts, unsurprisingly Qurʾans account for the greater number after the formal official conversion to Islam of the ruling elite in 1295. Baghdad seems to have been the most prolific, if not the most important, centre of creation of such manuscripts in the period from 1282 to 1320.⁴ However, two magnificently illuminated Qurʾans come from Mosul and Hamadan: these two isolated examples alone testify that high-quality illuminated manuscripts were produced in towns other than Baghdad.⁵ Tabriz by contrast lacks certain attribution of lavish Qurʾan manuscripts, but the presence of the most important atelier of book production founded by the Ilkhanid vizier Rashīd al-Dīn leaves no doubt about quality and quantity.⁶

Baghdad certainly also produced illustrated manuscripts. The former assumption that artistic workshops ceased to exist in Baghdad after the town was devastated by the Mongols in the mid-thirteenth century has been shown to be wrong by Marianna Shreve Simpson.⁷ The colophons of manuscripts such as the *Rasāʾil ikhwān al-ṣafāʾ* of 1287 and of the *Marzubannāma* of 1299 demonstrate how this city was important and active in the formation of Ilkhanid painting. The Munich Qazvīnī of 1280, although copied at Wasit near Baghdad, has a style of painting which closely resembles that of the capital city.⁸ The debated so-called small *Shāhnāma* manuscripts have been attributed to the same town.⁹ A number of other illustrated manuscripts showing the same link as the small *Shāhnāmas* to an earlier Mesopotamian tradition may well have a close connection with Baghdad.¹⁰

Tabriz emerges later than Baghdad as an important centre of

production of illustrated manuscripts. The town is associated with the figure of Rashīd al-Dīn and the artistic workshop he created in the suburb of Tabriz, the Rabʿ-i Rashīdī. At the beginning of the fourteenth century the town became the intellectual centre of the Ilkhanid kingdom. In the Rabʿ-i Rashīdī important historical works such as Rashīd al-Dīn's *Jāmiʿ al-tawārīkh* were copied, together with translations of Chinese works such as the *Tanksuqnāma*, and illustrated in conscious imitation or reinterpretation of Chinese models.¹¹ A taste for pale hues and creamy colours with sparingly used blues and reds was developed, together with a new interest in landscape and the realistic portrayal of Mongol attire. Sometimes, as is the case of the *Divāns* of 1313–14 in the India Office Library, this formula became even repetitive.¹²

The town of Maragha, just 75 km south of Tabriz, appears to have been the scientific centre of the Ilkhanid world. The presence of its renowned observatory must have encouraged scientific study and the collection of books on similar subjects. The attention devoted to scientific works of Arab and Persian origin was therefore probably more strongly felt in Maragha than in Tabriz around the turn of the fourteenth century. Testimony to this interest as related to illustrated books is the New York *Bestiary* which was produced in Maragha in the last decade of the thirteenth century, possibly under the patronage of Ghāzān Khān himself (r. 694–703/1295–1303) who had ordered its text's translation from Arabic into Persian. As established in Chapter 3, the New York *Bestiary* is related to the London Qazvīnī especially in elements of its landscape.

The Edinburgh al-Bīrūnī, a seminal manuscript in the discussion of the London Qazvīnī, is a codex whose place of production is disputed by scholars between Tabriz and Maragha. As mentioned in Chapter 4, its colophon does not reveal where the manuscript was produced but only its date of completion, 707/1307. Scholars are generally inclined to locate the production place of this codex in Tabriz. However, Priscilla Soucek's suggestion of Maragha as an alternative to Tabriz deserves to be given serious consideration. The use of colours in the Edinburgh al-Bīrūnī is quite different from those of the Rabʿ-i Rashīdī as reflected in the *Jāmiʿ al-tawārīkh* manuscripts; in addition, its elements of landscape and vegetal foreground are closely related to the New York *Bestiary* created in Maragha (and to the London Qazvīnī). Yet the Edinburgh al-Bīrūnī is neither a work celebrating the Ilkhanid kingdom and so to be associated with Tabriz, nor a scientific codex to be linked directly to Maragha. However, the discovery of the London Qazvīnī and its close relation to the Edinburgh manuscript, to the point that it is suggested in Chapter 3 that the same painter worked on the two codices, opens the way to suggest another possible production centre for the Edinburgh al-Bīrūnī, that is, the town of Mosul in the Jazīra, which is roughly equidistant (c. 350 km) from both Tabriz and Baghdad.

In the codices purported to have been produced in Baghdad around 1300 no Anatolian element is noticeable. In this period the Baghdad workshops were apparently very busy trying to get rid of older formulae by merging in their paintings Mongol and Chinese elements with Mesopotamian book illustration, albeit with mixed success. In the London Qazvīnī this blend of various influences into single illustrations, this urge to produce something artistically new and different is not present. In addition, one would expect that, if produced in Baghdad, the illustrations of the London Qazvīnī would have been close in style to the paintings of the Munich Qazvīnī which was produced in Wasit just south of Baghdad about two decades earlier. On the contrary, both the style of the paintings and the illustrative cycle of the two manuscripts are different, as shown in Chapter 5.

Tabriz and Maragha can also be excluded for different reasons in relation to the London Qazvīnī. These two towns were the true Ilkhanid centres, the places where all efforts to establish the dynasty's supremacy and its right to rule were exerted. The content of al-Qazvīnī's text does not seem to fit well in a scriptorium like the Rab'ī Rashīdī in Tabriz, which was preoccupied with historical and dynastic matters. In addition, the style of the illustrations of the London Qazvīnī is very different from what we know of the manuscripts that were produced at the scriptorium. Maragha is a possible option because of its interest in scientific works, proven by the New York *Bestiary*. However, in this manuscript an Anatolian element is once more entirely lacking. If the New York *Bestiary* and the London Qazvīnī had both been produced at about the same time at Maragha, one would expect the representation of animals in the two manuscripts to be very similar. Instead, only details are common to both manuscripts, and it is the shared interpretation of the vegetal foreground which allows us to consider these two codices as related, as shown in Chapter 4.

The exclusion of Baghdad, Tabriz and Maragha strongly suggests that Mosul is the best candidate as the place of production of the London Qazvīnī. The most important centre of the North Jazira in the twelfth and thirteenth centuries, Mosul was a major place of intellectual and artistic life. It was a recognised metalwork production centre and a number of illustrated codices have been associated with it especially during the rule of Badr al-Dīn Lu'lu' (r. 1233–59).¹³ Unfortunately, the extant manuscripts do not allow Mosul to be connected with certainty to any of the illustrated codices produced between 1280 and 1320. However, the town was an active artistic centre in that period. The above-mentioned part of the Qur'an completed in Mosul for Sultan Uljaytū in 1310 is the best evidence for the presence of a professional workshop in Mosul and of a high level of craftsmanship in manuscript production and illumination. Illustrated manuscripts must have been executed in such an atelier although this is not yet corroborated by definitive evidence.

As mentioned above, the illustrations dealt with in Chapter 3 are a clear demonstration that one of the painters responsible for the London Qazvīnī was aware of Seljuq models and another probably came from Anatolia, whereas a third painter was indebted to traditional Mesopotamian models. The most intriguing illustration in the London Qazvīnī, showing the planet ‘Uṭārid (cat. 1), strongly suggests a restricted geographical area for its production. Its connection to talismanic and astronomical science, to the Sabians and the Yazidis, seems to limit the area to Mosul and the Tur ‘Abdin, looking north towards Mardin, Diyarbakr and Van rather than south to Baghdad. The knotted dragon (cat. 335) decidedly points to Anatolian models. The wings of the archangels (cat. 13–15) find their best parallels in the illustrations of a copy of al-Šūfī’s *Book of the Fixed Stars* probably copied in Eastern Anatolia;¹⁴ their facial features are in the North Jaziran tradition of the first half of the thirteenth century. The only centre that was capable of gathering such artistic influences ranging from Anatolia to Mesopotamia appears to have been Mosul. No extant illustrated manuscript from this period betrays such an obvious dependency on North Jaziran and Anatolian models as the London Qazvīnī.

The sources have also transmitted an interesting story connected to Mosul around 1300. This concerns the composition in that city of Ibn al-Ṭīqtaqā’s historical book, usually known under the title of *Kitāb al-fakhrī*. Ibn al-Ṭīqtaqā¹⁵ was travelling from Baghdad to Tabriz in *jumādā* II 701/February 1302; in the introduction to his book¹⁶ he explains that he was prevented from reaching Tabriz by bad weather conditions and was forced to spend a few months in Mosul until *shawwāl*/June; there, he was guest of the *malik* (‘king’, in reality governor of Mosul) Fakhr al-Dīn ‘Isā ibn Ibrāhīm and was requested by him to write a historical book on caliphs and viziers and on the system of government. Obviously, the fact that the book was composed in Mosul is no more than an accident. However, this is sufficient to establish the case for literary and intellectual patronage in Mosul in the period of production of the London Qazvīnī datable to about those years. Little is known of Fakhr al-Dīn’s personality apart from the panegyric of Ibn al-Ṭīqtaqā. Nonetheless, a statement like ‘Sciences and culture other than those [of finance, medicine and astrology] were unpopular with [the Mongols], and I have not seen them popular except in al-Mawṣil in the days of its prince, Fakhr al-Dīn ‘Isā’¹⁷ is an enlightening one that cannot be ignored. According to Rashīd al-Dīn, Fakhr al-Dīn died just about one year after Ibn al-Ṭīqtaqā’s visit, in 702/1302–3.¹⁸ If one accepts the suggestion that the London Qazvīnī was produced in Mosul, Fakhr al-Dīn must be regarded as a possible commissioner of such a lavishly illustrated manuscript.¹⁹ In this case, the latest date for the production of the London Qazvīnī would be 1302–3, the presumed year of Fakhr al-Dīn’s death.

Finally, in Chapter 5 it is demonstrated that the London Qazvīnī is also important because it represents an idiosyncratic example in the illustrative cycle of the *‘Ajā’ib al-makhlūqāt*. From the point of view of illustration, the London manuscript has little in common with the Munich Qazvīnī and it seems that it was planned in ignorance of the previous illustrative cycle that had evolved during the author’s lifetime as exemplified by that manuscript. It can be inferred therefore that the paintings of the London codex were not inspired by other illustrated copies of the same work and that the calligrapher of the London Qazvīnī was relying on a non-illustrated text of the *‘Ajā’ib al-makhlūqāt*.

The reason why the London Qazvīnī did not serve in its turn as a model for later illustrated copies, as did instead the Munich Qazvīnī, is tentatively explained in Chapter 5: its physical isolation in a library and its lack of circulation until it surfaced in the early 1980s prevented it from being used as a model.

The London Qazvīnī is an important new document for the study of early illustrated Arabic copies of the *‘Ajā’ib al-makhlūqāt* as well as for the study of Ilkhanid painting. It could be argued that the codex, which shows many different artistic influences, adds much to the confusion – rather than to a better perception – which reigns when one attempts to properly understand a chronology and the development of Ilkhanid-period book illustration. As a matter of fact, this very ‘confusion’ is its great contribution: in a single manuscript are gathered the Mesopotamian tradition of painting, the North Jaziran-Seljuq element, the Anatolian inspiration, the Chinese dragon, and a number of illustrations of extraordinary subjects which escape a proper classification. All these elements are present in the London Qazvīnī and in no other extant manuscript produced under Ilkhanid patronage.

The London Qazvīnī is an extraordinary product which is largely indebted to the thirteenth-century painting of Mesopotamia and the North Jazira whereas at the same time its painters were aware of the latest changes brought about after the advent of the Mongols. In addition, the freedom to illustrate a recently written text with unusual subjects allowed the creation of new images. Its importance is therefore also characteristic of a period, the end of the thirteenth and the very beginning of the fourteenth century, and of an area, the North Jazira and Southeast Anatolia, where different regional artistic influences in painting were gathered. In the London Qazvīnī, these influences were fused in a single manuscript through the contribution of various painters.

Thus, the amount of information that this regrettably incomplete manuscript is able to offer is outstanding and greater than that of other codices produced under Ilkhanid patronage around the turn of the fourteenth century.

Notes

1. Syrinx von Hees in particular has devoted much attention to al-Qazvīnī's text in recent times. Von Hees 2002 is the closest study to a critical edition (in German). There is no space in the present work to include a chapter on al-Qazvīnī as a literary figure and on his works. Al-Qazvīnī is still today a controversial figure of medieval Arabic literature: some scholars have gone so far as to consider him the Pliny of the Arabs, others a mere plagiarist of his predecessors' works. The truth probably lies somewhere between these two opposing views. The genesis of the *'Ajā'ib al-makhlūqāt wa gharā'ib al-mawjūdāt* ('The Wonders of Creation and the Oddities of Existing Things') is also somewhat controversial: some scholars have counted four different versions of this text (Lewicki, 'al-Qazvīnī', *El2*), two of which were used for the later translations into Persian and Turkish. Wüstenfeld's Arabic edition of the text (al-Qazvīnī 1848) has also been the subject of long discussions and criticism among scholars. According to de Ruiter (1985: 37), however, only two versions of the *'Ajā'ib al-makhlūqāt* were originally supervised by al-Qazvīnī himself, both bearing the same title: the first one has survived only in fragmentary manuscripts; the second is represented by the earliest surviving copy of this text, the Munich Qazvīnī (Bayerische Staatsbibliothek, Cod. Ar. 464, dated 678/1280). See note 3 in Chapter 5 for further bibliography and note 1 in the Description by Folio in Part Two for more detailed bibliography.
2. Berlekamp 2011.
3. For a survey of painters in the Ilkhanid scriptorium see Blair 2006. In her discussion on the provenance of the *Kitāb na'ṭ al-ḥayawān*, Contadini (2012: 153 and 156) addresses indirectly the likelihood of artists moving from place to place: 'There is, in short, a certain fluidity in the North Jaziran region [...] with stylistic features that seem to travel from one geographical area to another, implying a greater complexity in manuscript production, with exchanges of both artists and artistic vocabulary, than our present knowledge allows us to determine.' In reference to production in Baghdad, 'some manuscripts [...] nevertheless exhibit a consistency [...] sufficiently great to warrant them being associated as the products of a common school, albeit one to be understood rather loosely, depending on shifting relationships between quite possibly itinerant painters.'
4. James 1988: cat. 36–41, 43, 48–9, 72 and 74. Eleven manuscripts were copied at, or are attributed to, Baghdad.
5. James 1988: cat. 42 and 45 respectively.
6. James 1988: cat. 41, 44, 46–7 and 72.
7. Simpson 1982.
8. Without elaborating on this subject, Contadini (2012: 93) seems to agree when she states that the Munich Qazvīnī was 'copied in Wasit and probably painted in Baghdad'.
9. Simpson 1979.
10. These manuscripts are dealt with in Chapter 3 under the discussion of the illustrations set against a red background.
11. The celebrated *Jāmi' al-tawārīkh* was copied in several volumes under the supervision of the vizier Rashīd al-Dīn between 1307 and 1315; surviving manuscripts are in Edinburgh University Library, Or. Ms. 20 (Rice and Gray 1976 and <<http://images.is.ed.ac.uk>> (last accessed

- 4 February 2015)); in the Khalili Collection in London, formerly in the Royal Asiatic Society (Gray 1978, Falk 1985: 48 and 50–2, cat. 18, and Blair 1995; and in the Topkapı Sarayı, Istanbul, H. 1653 (Ağa Oğlu 1934). For the *Tankusuqnāma* in Istanbul (Aya Sofya no. 3596) see Gölpınarlı and Ünver 1939, Berlekamp 2010 and Lo and Yidan (forthcoming).
12. London, India Office Library, nos 903, 911 and 913. See Ethé 1903. For illustrations, see Arnold and Grohmann 1929: pl. 42, Binyon, Wilkinson and Gray 1933: 46, no. 27.
 13. See Chapter 3, pp. 48–9.
 14. See Chapter 3, p. 56.
 15. Şafī al-Dīn Muḥammad ibn ‘Alī ibn Ṭabāṭabāī, known as Ibn al-Ṭiḡṭaqā, was probably born in 1262 at Hilla or Baghdad. He was a *sharīf*, a descendant of ‘Alī ibn Abī Ṭalīb of the nineteenth generation. It is known of his life that he visited the tomb of al-Mustarshid billāh in Maragha in 1297; he was in Baghdad in 1298 when he met Sulṭān Ghāzān who was visiting the madrasa al-Mustanṣiriyya; he travelled to Kufa, Basra, Irbil and Isfahan. The date of his death is unknown. See Rosenthal, ‘Ibn al-Ṭiḡṭakā’, *El*2.
 16. Ibn al-Ṭiḡṭaqā 1962: 6. The earliest printed Arabic version of the work is Ibn al-Ṭiḡṭaqā 1860.
 17. Whitting 1947: 23.
 18. D’Ohsson 1834–5: IV, 328, 1.
 19. Berlekamp (2011: 61) indirectly supports the suggestion of Fakhr al-Dīn’s patronage of the London Qazvīnī, arguing that the manuscript was likely to have ‘circulated among the class of intellectual scholar bureaucrats’.

PART ONE

CHAPTER ONE

Al-Qazvīnī's Illustrated Text between Scientific and Narrative Literature

THE PURPORTED EMERGENCE of the literary genre usually known as *ʿajāʾib* or 'wonders', a definition that became standard among literary critics and included at the top of their list al-Qazvīnī's most celebrated text, the *ʿAjāʾib al-makhlūqāt wa gharāʾib al-mawjūdāt* (compiled c. 1260–80), represents a remarkable phenomenon within the context of Islamic illustrated manuscript production of the late thirteenth and fourteenth centuries. Al-Qazvīnī is believed to have lectured using his own text, and the Munich codex, which was finished in Wasit three years before his death,¹ arguably represents a sanctioned copy by al-Qazvīnī himself if not one of his own textbooks. By extension, we can infer that the *ʿAjāʾib al-makhlūqāt* was conceived, written and planned by its very author to be an illustrated text.

This last observation becomes the starting point for an attempt to understand whether the tradition of the 'wonders of creation', specifically in the case of al-Qazvīnī's text, positions this author squarely into the production of scientific illustrated manuscripts and, if so, how the illustrations of the early copies of the *ʿAjāʾib al-makhlūqāt* fit into the development of Islamic art history.

If one looks at the revolutionary changes that occurred in Iran under Ilkhanid dominance, richly illuminated and illustrated manuscripts can be regarded as their main achievement in the visual arts.² Little is known about earlier book production in Iran under the Seljuqs; however, it can confidently be argued that what is usually defined as 'Arab' painting – mostly in reference to the last decades of 'Abbasid rule in soon-to-become Ilkhanid Iraq – does not carry the same self-defined and confident political and historical weight clearly expressed in the production of manuscripts such as the *Jāmiʿ al-tawārīkh* and in the proliferation of heavily illustrated copies of Firdausi's *Book of Kings* culminating into one of the masterpieces of Persian painting, the Great Mongol *Shāhnāma*.³

Illustrated book production in Iran in the last two decades of the thirteenth century and the first half of the fourteenth represents an exciting moment during which subtle political messages and Ilkhanid self-proclamation and appropriation of Iranian cultural

history became triggers for an array of different works ranging from bestiaries, fables, epics, poetic encyclopaedias and calendrical texts to the 'wonders of creation'. This also meant that painters and illustrators were pushed to the limits to create new compositions, figures, landscapes, perspectives, palettes. They responded brilliantly to this challenge, expanding their horizons and adopting and adapting other artistic traditions to their own needs and to those of their patrons and the workshops in which they operated.

Al-Qazvīnī was the product of this environment. Born of Arab origins in Qazvin in 1202, he studied law and theology following his family's main interests and occupations. After the Mongol conquest of Qazvin in 1220, the eighteen-year-old moved to Mosul where he spent about twenty years. His formation as a man of law and an erudite scholar took place in this large northern Iraqi centre where he had the opportunity to meet, learn from, and discuss religion, philosophy, astronomy, mathematics and geography with the likes of his acknowledged master al-Abḥārī (d. 1265), the geographer Yāqūt (d. 1229) and the historian Ibn al-Athīr (d. 1233). He also met the philosopher and mystic Ibn al-ʿArabī (d. 1240) in Syria. He moved to Baghdad to pursue his career as a judge in the dying years of the ʿAbbasid caliphate under al-Mustanṣir (1226–42) and al-Mustaʿsim (1242–58). In 1254 he became chief *qadi* in Wasit and a professor at the Madrasa al-Sharabiyya, both posts he held until his death in 1283.⁴ Al-Qazvīnī therefore also served the new Ilkhanid elite without dramatic consequences and became part of their intelligentsia for most of his mature years. He was rather influential as an intellectual and a man of law under his new patrons, a claim that is strongly supported by the fact that the textual version of the London Qazvīnī is the earliest to carry a dedication to the notable historian and governor of Baghdad ʿAṭā Malik Juvainī (1226–83), who supported all kinds of intellectual endeavours.⁵

In her recent work dedicated mostly to a study of the function of the text and illustrations of al-Qazvīnī's *ʿAjāʾib al-makhlūqāt* during the first hundred years of development of the 'wonders of creation', Persis Berlekamp has raised the level of this discussion and offered a novel sociological, intellectual and philosophical interpretation.⁶ Following Syrinx von Hees's lead on the 'deconstruction of the idea of *ʿajāʾib* literature' and her convincing argument that al-Qazvīnī's work is instead an 'encyclopaedia of natural history',⁷ Berlekamp has pointed out that the author's stated purpose in the preface of the text is to induce wonder and awe at God's creation, that the meaning of 'wonder at God's creation' changed over time within the first hundred years due to a change in its readership, and, perceptively, that 'our modern educations significantly interfere with our abilities to recognize either of the first two points above'.⁸ She alleges that the initial audience for these texts included the Turco-Mongol court but also – given al-Qazvīnī's background and

his Neoplatonic attitude – the intellectual and bureaucratic elites and the academic faculties with their students in madrasas and high learning institutions.

While some of her assumptions may be disputed,⁹ Berlekamp's conclusion that the genre of wonders and its illustrative cycles in the late thirteenth and early fourteenth century were focused on the cosmic order of the universe whereas by the late fourteenth century the preoccupation had shifted to 'human agency' – that is, the illustrations started to deal more specifically with wonders that pertain to human rather than divine craftsmanship and to human interaction with the divine creation – is an excellent statement. Consequently, we can conclude that there was a shift over the course of the fourteenth century in what was expected from the reader, that is, an adjustment from a passive role pertaining to his acceptance and wonder at the established divine order to an active one linked to human interaction with it. This conclusion provides a solid framework for a better understanding of these illustrated manuscripts in terms of both their art historical development and their intellectual contribution.

It is opportune in the context of the London Qazvīnī, however, to focus on the first few decades and on the genesis of the text, when al-Qazvīnī himself envisioned for his readers a didactic, Neoplatonic and Avicennian approach in his text in order to demonstrate the oneness of God's creation.

This premise would suggest that the intent of the book is not 'scientific' according to the most common meaning of this term. The illustrations are meant to provide a progressive, incessant, repetitive and ultimately intellectual visual impact as the reader proceeds through the text in the order of emanation of the universe: from the outer spheres housing the Throne of God, the angels and the planets to the most humble plants, insects and critters living in the Earth's soil. As the 'wonder' increases page after page, the intent of the illustrations is not so much the same as that of al-Ṣūfī who needed to have a precise and mirror-imaged representation of the forty-eight known constellations¹⁰ nor that of Ibn Bakhtishū' who described how useful to man are the various parts of an animal from the medical viewpoint.¹¹ Rather, illustrations such as the Human-faced Fish that live in the Indian Ocean (cat. 44), the Soft-legged People of an island in the Sea of Zanj (cat. 71), the Lemon Tree (cat. 176–7), the Colocynth (cat. 222), the Ape-like Jinn playing the lute (cat. 249), the 'Sinād' (cat. 273), the 'Ṣannāja' (cat. 339), the Crossbreeds between men and animals (cat. 344–5, 350, 352–3, 357)¹² do not exist in scientific isolation but are simple tesserae in the entire mosaic of the cosmos, thus helping the reader to engage with the oneness, power, awesomeness and, ultimately, knowledge of God through the study of the natural world. In order to achieve this ultimate knowledge, the reader needs to be already in possession of a degree of scientific notions, at the



Figure 1.1 *The Animal Called 'Sinād'*, fol. 110v, 73×146 mm.



Figure 1.2 *The Blind People of Zanj*, fol. 132v, 46×167 mm; *The 'Sagsār' People of Zanj*, fol. 132v, 74×167 mm; *The Soft-legged People of Zanj*, fol. 132v, 65×142 mm.

same time being predisposed to improve his personal inner self. Al-Qazvīnī's intent is therefore ultimately didactic since he strives to lead his readers to the knowledge of God through his encyclopaedic work according to purely Islamic, though non-dogmatic, beliefs. In his own words in the introduction of the manuscript, al-Qazvīnī reminds us that 'those who read my book must know that its principal goal consists in gathering what was scattered and sewing back what was strewn'.¹³ This is, of course, the main *raison d'être* of an encyclopaedia. He also insists that 'I have not made anything up but I have written down everything as I was told or as I have read it'.¹⁴ This means that, however fanciful a piece of information might seem, it is still plausible and we must not set out necessarily to verify it because it is part of God's creation. The terms *'ajīb* and *'ajā'ib*, consequently, should be judged by our modern minds not as fantastic or imaginary but as wonderful, in the near-religious sense that they inspire stupefaction at God's actions.

With these considerations in mind, the literary genre of the wonders of



Figure 1.3 The Elephant-like People, fol. 133r, 63×164 mm; The Horse-like People, fol. 133r, 77×158 mm; The People with Two Faces, fol. 133r, 76×161 mm.



Figure 1.4 *The People with Multiple Legs*, fol. 133v, 57×162 mm; *The Female People*, fol. 133v, 47×158 mm; *The Human-headed Snakes*, fol. 133v, 57×162 mm; *The People with Their Faces on the Chest*, fol. 133v, 50×160 mm.

creation sits squarely in between medical, zoological, botanical and astronomical texts and purely narrative works in prose. Paraphrasing von Hees, al-Qazvīnī has woven structure and content into a systematic encyclopaedia of natural history, offering information on all aspects of the natural world within a philosophical, religious and scientific framework, at the same time taking pleasure in employing narrative devices and story-telling.¹⁵ In this way, the role of this text in the development of Islamic book illustration and Islamic art history acquires a hybrid connotation that shuttles back and forth between the intent of scientific and narrative illustrated texts, always keeping in mind the ultimate goal of instilling astonishment in God's creation. Interestingly, since this implies the representation of religious ideas and supernatural beings such as the angels through images in their scientific form, it can be claimed that al-Qazvīnī also pioneered such depictions in Islamic art. If on the one hand this helps to elevate and position scientific illustrations into an art historical context, on the other its often schematic and simplistic compositions throughout the

more narrative sections contribute to lower the overall perception of the genre as an important player in the development of medieval Islamic book production.

A couple of examples are sufficient to reinforce the first point above in the case of the London Qazvīnī. In the complete Munich manuscript the planets are illustrated according to their most traditional astrological iconography and placed against a plain blank background: Mercury as a sitting scribe, Venus as a female musician, Mars as a man with a sword holding a severed head in his hand, Jupiter as an aged learned man, Saturn as a dark-skinned man holding an axe (fols 13r, 14r, 16r, 16v and 17r respectively).¹⁶ The details of their robes, posture and facial features nicely place them within the artistic development that we can observe in the late thirteenth century when the 'Abbasid tradition was about to give way to the Ilkhanid innovations. However, apart from this observation little can be said about these paintings in an art historical context

since they follow an established repetitive scientific iconography. On the contrary, the only surviving illustration in the section on the planets in the opening chapters of the London Qazvīnī, which represents Mercury (*ʿuṭārid*), deserves a detailed study of its own (cat. 1).¹⁷ Mercury is shown as a man holding a black book in his right hand and a looping black snake in the left while he sits astride a multi-coloured peacock. The image is puzzling to say the least but it is demonstrated in the discussion in Chapter 3 that it belongs to a tradition of describing and illustrating the planets in their talismanic manifestation and it has links with the Yazidis, which greatly helps to place this illustration in the North Jazira or Southern Anatolia. This is art history at its best, making us regret the loss of the pages containing the representations of the other planets. In this instance the reputedly 'scientific' image of Mercury as a planetary figure in the *ʿAjāʾib al-makhlūqāt* affords a complex and rewarding study that transforms it into one of the most significant paintings for the understanding of early fourteenth-century book illustration.

Another example from the London Qazvīnī, admittedly the most unusual and creative among the early illustrated copies of this text, is provided by the diachronic approach to some of the narrative stories on the part of the calligrapher who laid out the text as well as the painters'. The story of the 'Man from Isfahan Rescued by the Giant Bird' (cat. 62–3 and discussion in Chapter 3) is illustrated by two images on the same page: a night-time depiction of the giant rooster-like bird perched atop a tree on the island and a day-time village scene. The protagonist of the story – the man from Isfahan – is absent in both illustrations, which focus on the two locations where the adventure takes place, the island and the village. The two paintings therefore do not provide a descriptive visual aid to the story, which needs to be read in full in order to be understood. On the contrary, they possess that scientific neutrality that is required in this zoological, geographical and anthropological section on the 'Animals Living in the Persian Sea' without being carried away by the narrative part of the story. A similar approach with two illustrations placed within a single story can be observed in other instances in the London Qazvīnī, such as the 'Island of the Dragon' in the Indian Ocean (cat. 42–3), where the second illustration is a plain 'scientific' image of the strange and wonderful animal called *mī'rāj*, and the 'Lemon Tree' (cat. 176–7), where it is the botanical illustration that comes first whereas the second image is subversive because it is the only one in this section that addresses a narrative account; in this case, the whole story is synchronically rather than diachronically frozen in a single image, which is counterbalanced by the initial scientific representation of the lemon tree. Al-Qazvīnī's intent of introducing the physical materiality of this well-known tree and subsequently indulging in a long narrative explanation of the wonderful healing properties of its fruit is perfectly mirrored by the two illustrations.

As in the case of the talismanic representation of the planet Mercury, these pairs of images require an art historical analysis that goes beyond their purported rationale, distancing in this way the 'wonders of creation' genre from the tradition of scientific book illustration, at the same time differentiating it from strictly narrative texts whereby the paintings provide a visual complement to the development of a story through the depiction of one or more salient moments. As noted by Berlekamp, a 'notable but small proportion of narrative images [...] expanded in the late fourteenth century to a more significant proportion';¹⁸ she consequently allows the argument that the London Qazvīnī also stands out because it anticipated the shifts that happened later in the fourteenth century within a couple of decades after al-Qazvīnī's death.

The early copies of the *'Ajā'ib al-makhlūqāt* – first and foremost among them the London Qazvīnī – provide an interesting perspective in the debate over whether scientific illustrated manuscripts can truly contribute to a proper understanding of Islamic art history. Scientific in their repetitive layout and in their objective to offer an image for each and every constituent of the universe present in the text; Neoplatonic and Avicennian in al-Qazvīnī's declared intent to instil wonder and awe at God's creation; sporadically keen to introduce narrative illustrations which reveal al-Qazvīnī's underlying intentions but which at the same time undermine the orderly organisation of the manuscript; and rarely employing first-class artists and exhibiting memorable illustrations, the early 'wonders of creation' manuscripts do not fit into any established compartment in our understanding of the development of Islamic miniature painting. As stated by Berlekamp, 'considering the images in the wonders-of-creation manuscripts through the intellectual and social contexts in which they were produced and received offers us a richer view of these manuscripts, their images, and medieval Islamic art and culture more broadly'.¹⁹ Therefore, positioning them into a different, neither scientific nor narrative category which freely borrows from both genres can make them positively contribute to the art historical discourse. Since the *'Ajā'ib al-makhlūqāt* was immediately declared a licit, uncontroversial book from the legal and religious viewpoint, it quickly reached a large number of learned Muslims who in their turn exerted their influence over the political class and the administrators of the new Ilkhanid elite (first among them Juvainī) who would have approved of al-Qazvīnī's scientific and philosophical ideas.

Placing the London Qazvīnī in Mosul at the very beginning of the fourteenth century on art historical grounds fits like a glove with the assumption of an erudite readership, especially considering that the city which he called home for about twenty years had played a vital role in al-Qazvīnī's formation and therefore he must have been well known in those circles. This exceptional illustrated manuscript

must have resonated positively and created a buzz in this intellectual environment of which Fakhr al-Dīn was one of the most active promoters.

Notes

1. See note 1 in the Introduction.
2. A synthetic survey is in Hillenbrand 2002.
3. For the *ġāmiʿ al-tawārikh*, see in particular Blair 1995; for the Great Mongol *Shāhnāma*, see among others Grabar and Blair 1980, Blair and Bloom 2001 and Blair 2004.
4. Al-Qazvīnī's body was transported to Baghdad and buried in the Shuniziyya Cemetery.
5. The dedication is in the presentation of the book at fol. 2r. It would appear that those authors who dedicated their literary works to Juvainī were rewarded with a thousand dinars (von Hees 2008: xvii). Among others, see George Lane, 'Jovaynī, 'Alāʾ-al-Dīn', in *Encyclopaedia Iranica*, published online, 9 March 2009, at <<http://www.iranicaonline.org/articles/jovayni-ala-al-din>> (last accessed 5 January 2015).
6. Berlekamp 2011.
7. Von Hees 2005: 101–2.
8. Berlekamp 2011: x. Von Hees's and Berlekamp's arguments are well supported by the existence of earlier texts of natural history which have now been identified as having similar religious/philosophical purposes. In reference to the *Kitāb naʿt al-ḥayawān* of c. 1225, Contadini (2012: 4) points out that 'the aim of the *Naʿt* is to show that observation of animal behavior will lead to wonder at their characteristics and hence to awe at God's handiwork'. On the other hand, Contadini (2012: 164) tends to dismiss al-Qazvīnī's intents, referring to his work as 'the imaginary creatures of al-Qazvīnī's *ʿajāʾib*': indeed, al-Qazvīnī accepted as unquestionably existent all the creatures he described, including the more fanciful ones of which he had no direct experience, being nothing less than God's handiwork. It is our modern education that has turned them into imaginary beings.
9. See the present author's review of Berlekamp 2011 in *W86th: A Journal of Decorative Arts, Design History, and Material Culture*, 19, 2 (Fall–Winter 2012): 319–24, available at <<http://www.jstor.org/action/showPublication?journalCode=west86th>> (last accessed 5 January 2015).
10. See Wellesz 1959, Carey 2001, Contadini 2006, Carey 2009 and Carey 2010.
11. A recent major publication on the subject is Contadini 2012, where all the relevant bibliography can be found.
12. Just a few examples of wonders that appear progressively throughout the text in the Fourth Chapter, on the Sphere of Water (*al-naẓar al-rābiʿ fī kurat al-māʾ*), and the Fifth Chapter, on the Sphere of Earth (*al-naẓar al-khāmis fī kurat al-arḍ*). The Lemon Tree (*laymūn*) is included in the Sphere of Earth under the Second Chapter, on the Vegetable Kingdom, First Section, on Trees (*al-ashjār*); the Colocynth (*ḥanzāl*) is in the Second Section, on Plants (*al-nabāt*). The jinns are in the Third Chapter, on Animals, Second Species. The 'Sinād' is under the Fifth Species, on Predatory Animals (*al-sibāʿ*). The 'Šannāja', the largest animal on earth, is under the Seventh Species, on Reptiles and Insects (*al-ḥawāmm wa*

al-ḥasharāt). The crossbreeds conclude the text under the Conclusion (of the book), on the Animals Having a Strange Body (*khātima fī ḥayawānāt gharībat al-ashkāl*).

13. Fol. 2r, lines 20–1.
14. Fol. 2v, lines 4–5.
15. Von Hees 2005: 112.
16. All images are available at <<http://daten.digital-sammlungen.de/~db/0004/bsb00045957/images/index.html>> (last accessed 4 February 2015). The illustration of Jupiter was published in black and white in Arnold and Grohmann 1929: pl. 25.
17. See full discussion in Chapter 3.
18. Berlekamp 2011: 176.
19. Berlekamp 2011: 178.

CHAPTER TWO

The Illustrations of the London Qazvīnī: General Description

THE NUMBER OF surviving illustrations in the London Qazvīnī is 368. The manuscript is incomplete and about two thirds of the original folios are extant. This means that a number of illustrations have also been lost: these correspond to about a quarter of the original c. 520 according to the reconstruction of the full text (see the discussion in Chapter 5 and the Table of Comparison in the same chapter). While their loss is regrettable and unfortunate, the surviving illustrations nonetheless constitute three quarters of the total cycle and allow a general discussion of many stylistic features of the paintings ranging from their iconography to the use of colours and of specific vegetal foregrounds.

The present chapter includes a general discussion on the illustrations found in the London Qazvīnī; their present condition; the range of their colours; their foregrounds and landscapes; their dimensions; their position within the text; and other information that helps understand the general features which give unity to the codex.

General features

The paintings found in the London Qazvīnī are intended to illustrate the text. This may seem quite an obvious statement since Islamic miniature painting is generally created as text illustration, but the relationship between text and illustration in the London Qazvīnī is an especially close one.

The text of the *ʿAjāʾib al-makhlūqāt*, the first of such literary genre known to be fully illustrated, stands between scientific and *adab* or narrative literature. The majority of the sections of the London Qazvīnī have one illustration for each subject dealt with throughout the text. Parallels for this can be found in strictly scientific illustrated literature such as herbals and bestiaries, which due to their encyclopaedic approach require an image for each entry in the text. Consequently, it could be said that the London Qazvīnī has been approached more as a scientific text than as a work of narrative literature, although less so than the other early copies of this text, as discussed in Chapter 5.

This is also underlined by the fact that this manuscript is more lavishly illustrated than any other copy of the same text produced in the thirteenth or fourteenth centuries.¹ The nature of other commonly illustrated texts of Arabic and Persian literature, such as *Kalīla wa Dimna*, *Maqāmāt* and *Shāhnāma*, requires instead a limited and deliberate choice of subjects for the illustrations.

Only a few sections of the London Qazvīnī are not illustrated, while others have a minimal rate of illustration. The sections on minerals and natural phenomena like the seasons, the winds and thunder, for example, were not illustrated.² Paintings also rarely appear in the sections on the months of the year, the mountains, rivers, springs and wells. In these cases, this is due to the fact that the text is more descriptive and anecdotal, and a careful selection has been made to illustrate it,³ similarly to the treatment of narrative texts. While these narrative paintings do not challenge the general rhythmic illustrative intent of the manuscript, it must be emphasised that the London Qazvīnī stands isolated among other early copies of the same text in that it includes a sizable number of them.

The paintings in the London Qazvīnī are always located within the relevant lines of text. The great majority (about 300), with special reference to the sections on the vegetable and the animal kingdoms, generally occur either on the right or the left side of the column of text that relates to the illustration. As a rule, the title in red lettering and the beginning of the text are found one or two lines above the painting; the text continues alongside and ends below it. The illustration is therefore bracketed and almost surrounded by its text, as if filling a reserved space within the relevant text block.

The remaining illustrations occupy the whole width of the written page (average 160 mm). In these cases, the painting is invariably 'sandwiched' between the lines of relevant text. It is generally located shortly after the beginning of the text, one or two lines below its title, and the remainder of the text continues below the painting. The only exceptions to this rule are the illustration of the archangel Gabriel (cat. 13)⁴ and some instances in which the relevant text is particularly brief (one or two lines, especially among the paintings illustrating strange races of people in the last pages), in which case the paintings are located after the text. No painting anywhere in the London Qazvīnī is located before its text or just after its title.

The close link between the illustrations and the text of the London Qazvīnī is evident not only from the physical location of the paintings within the text but also from their strict adherence to the written description of the subject. The painter always portrayed, or attempted to portray, what is actually described by the words. Since the text deals with wonders and strange animals, the painters often did their best to illustrate unusual and fantastic subjects. The

same problem probably arose when they had to differentiate among a large number of plants and trees, many of which were unfamiliar to them.

It is possible to charge the illustrators with only two major mistakes. The text of cat. 149 describes the Cypress tree whereas the title in red reads 'The Coconut'. The painter seems to have trusted the title without checking the text and wrongly drew a coconut tree, which of course occurs again later in the manuscript (cat. 181). The second mistake relates to cat. 48, which illustrates a fish for which however no text is available: in this case the painter confused the sequence of illustrations and was left with an empty space to fill at the end of the page without any text to describe it (see note under cat. 48 for a more detailed explanation).



Figure 2.1 *Banana Tree (mawz), fol. 89v, 89×102 mm; Orange (nāranj), fol. 89v, 52×66 mm; Coconut Palm (nārjil), fol. 89v, 58×92 mm.*



Figure 2.2 *Solomon and His Jinns, fol. 100r, 135×168 mm.*



Figure 2.3 *Solomon and His Jinns*, fol. 100v, 105×170 mm and 57×90 mm.

In another case the painter apparently took the initiative to create scenes without specific relation to the text. This occurs in a sequence of three paintings in the section on King Solomon concerning jinns (cat. 245–7). The first two illustrations are stereotyped throne scenes representing Solomon in conversation with attendants and surrounded by the jinns under his orders. In the third painting, however, the artist depicted only two jinns disguised as animals, although the text does not describe them at all. It seems likely that the painter, who must have been accustomed to creating such standard scenes, chose instead to offer an iconographic variation on the subject.

A brief discussion of the dimensions of the illustrations in the London Qazvīnī is useful. They vary greatly from the smallest, 26×60 mm (the Hoopoe Lark, cat. 327), to the largest and most impressive painting representing the fabulous beast called *Ṣannāja*, 205×168 mm (cat. 339). No painting is full-page and no frontispiece is found in the manuscript.

The dimensions of the single illustrations were selected by the copyist or by the general editor or supervisor of the lay-out of the manuscript according to the content of the text that was being copied. The reason why the painting illustrating the *Ṣannāja* is the largest is simply due to the fact that it is described by

al-Qazvīnī as the largest animal on earth. The fantastic ‘Anqā (cat. 313) is much bigger than the other illustrated birds because, according to the text, it is the largest among birds. Angels are also of large size because they are supernatural entities and al-Qazvīnī describes them as beings ‘of infinite size’. Constellations and planets are large illustrations because they are found in the outer spheres of the universe and also because they follow an iconographic tradition of representing the constellations in the large scale established in manuscripts of al-Šūfī’s *Book of the Fixed Stars*.

Apart from the remarkable exceptions described above, every living creature on earth is smaller, although not all of the same size. For example, the Rhinoceros (cat. 277), the Camel (cat. 259) and certain Snakes (cat. 332 and 335) were known to be large beasts, therefore more space was left to illustrate them than for other animals.

The dimensions of trees and plants are instead homogeneous. Trees are contained within square or rectangular frames whose sides rarely exceed 90 mm. Plants are smaller than trees and the paintings which illustrate



Figure 2.4 Curlew (karawān), fol. 125r, 50x85 mm; White Stork (laqlaq), fol. 125r, 55x90 mm; Heron (mālik al-hazin), fol. 125r, 59x93 mm; Hoopoe Lark (mukkāʾ), fol. 125r, 26x60 mm.



Figure 2.5 Bactrian Camel (ibbl), fol. 105r, 95x138 mm.

them generally have a rectangular shape, their width being much greater than their height.

The section on the islands is the least consistent as far as dimensions are concerned. Apparently, no rule was set and different choices concerning size were made while the text was being copied.

Finally, as a general rule the paintings are framed by a thin double red line (the same as that which encloses the page text block). Sometimes no frame is drawn, the surrounding text itself



Figure 2.6 Eridanus, the River (al-nahr), fol. 9v, 75×172 mm; Lepus, the Hare (al-arnab), fol. 9v, 43×120 mm.



Figure 2.7 Crater, the Cup (al-bāṭiya), fol. 11r, 43×103 mm; Corvus, the Raven (al-ghurāb), fol. 11r, 58×103 mm.



Figure 2.8 Goshawk (zumma), fol. 120r, 44×85 mm; Quail (summanā), fol. 120r, 32×85 mm.



Figure 2.9 Grouse (tayhūj), fol. 121v, 75×100 mm; Sparrow (‘uṣfūr), fol. 121v, 40×100 mm.

constituting it. In a few cases, two subjects have been portrayed inside the same frame (cat. 3–4, 9–10, 300–1 and 309–10).⁵ In a few others, the frame is thick and painted in gold (see discussion in Chapter 3).

Present condition of the illustrations

The London Qazvinī was in the hands of the Oriental Conservation Studio of the British Library for more than three years after its

acquisition in 1983. Its general condition was poor and many of its illustrations needed restoration. Each one of the 135 folios which form the present manuscript has been set into a cardboard mat and protected by transparent mylar. The manuscript has been reconstructed and it is now available to scholars in eight Solander boxes, each containing seventeen individual folios but for the last box which contains sixteen.⁶

The paper conservators faced two major problems in dealing with the illustrations. Some paintings were damaged so that parts were missing, and the paper itself was torn or perforated. Also, a good number of illustrations had been partially and inaccurately restored at some unknown stage by a previous owner. This clumsy restorer pasted pieces of paper on to the already damaged miniatures and completed the missing parts with sketchy coloured drawings.

The conservators of the British Library filled the missing parts with Japanese tissue paper in order to repair and reinforce the pages; the damaged parts are therefore still visible and no attempt was made to complete the paintings by filling with pigment. The unsightly patches left by the previous owner were not removed.⁷ Since they are painted very coarsely and are of no artistic value, unfortunately these patches often interfere with a proper understanding of the original features of the paintings because they have become a dominant and distracting feature in a number of illustrations. Although appropriate from the philological viewpoint, had these patches been removed during restoration and the damaged parts merely filled with white paper, the study of the paintings would be easier, offering a clearer picture of the high quality of the original paintings.

In addition to damage and the unsightly patches, original pigments have largely become detached. In some cases, the colour – especially red – was transferred from one page to the facing one.⁸ Finally, certain colours – in particular verdigris-based green – have affected the paper chemically so that the phenomenon of ‘burning’ or ‘dropping’ through the page has taken place: the result is a hole in the paper or at best a greasy stain visible on the reverse of the page.

In the Catalogue in Part Two a brief description is given of the condition of each of the 368 paintings (presence of patches, amount of damage, general condition and pigment detachment).

A survey of the individual entries in the Catalogue is useful to show the general condition of the paintings in the manuscript. A little over half the miniatures, 197 in all, are in good condition. As explained in the Catalogue,⁹ ‘good condition’ means that the illustration has not been patched or retouched, that it is original, and that no parts are missing. Only a limited amount of pigment was lost in these cases. There are eighty-two illustrations classified as ‘slightly damaged’ or ‘partially damaged’; they show either little patches and/or small damaged parts. They are in sufficiently good condition to be read and analysed properly. Sixty-six paintings are ‘damaged’ or

'heavily damaged' and their study is sometimes difficult because their original parts are too compromised or too little of them survives. Finally, twenty-six illustrations are 'entirely damaged', meaning that their condition is so bad that the original painting is no longer visible or they have been completely replaced by a patch. Patches of coarsely painted pasted paper are present in seventy-four illustrations, their size and number varying for each miniature according to the damage which the unknown 'restorer' intended to mend.

Further information on the condition of the illustrations of the London Qazvīnī can be obtained by studying the irregular distribution of damage throughout the manuscript. A division of the illustrations into groups is necessary in order to analyse such distribution properly.

The surviving 368 paintings of the London Qazvīnī can be subdivided for convenience into five different groups according to their subject following the textual order of the codex. A small number of paintings scattered through the manuscript, however, fit better into a sixth group on the grounds of their stylistic features. The groups are the following:

Textual order

1. Constellations – cat. 2–12 (11 illustrations)
 2. Sphere of Water – cat. 21–117 (97 illustrations)
 3. Vegetable Kingdom – cat. 123–241 (119 illustrations)
 4. Animals and Birds – cat. 255–343 (89 illustrations)
 5. Strange Animals – cat. 344–68 (25 illustrations)
- Stylistic features
6. Planets: cat. 1; Angels: cat. 13–17; Months: cat. 18–20; Mountains, Rivers, etc.: cat. 118–22; Jinns: cat. 242–54 (27 illustrations).

The group in the best condition is by far the section on the vegetable kingdom (Group 3) which contains 119 paintings. None of the illustrations has been patched or retouched, and only seven of them are described as slightly or partially damaged. The rest are in good condition.

A second group in generally good condition includes animals and birds (Group 4). Sixty out of its eighty-nine illustrations are described as being in good condition and fifteen are only slightly damaged. The remaining fourteen paintings are either heavily or entirely damaged.

A third group in good condition contains the constellations (Group 1). It is a small group of only eleven paintings. All the illustrations in this group are either in good condition or slightly damaged, and only three of them present small patches.

Group 6, which includes paintings scattered throughout the manuscript, is less homogeneous though generally in fairly good condition. Out of its twenty-seven illustrations, seven are in good condition,



Figure 2.10 *Canis Major, the Greater Dog (al-kalb al-akbar), fol. 10r, 62×166 mm; Canis Minor, the Lesser Dog (al-kalb al-mutaqaddim), fol. 10r, 75×107 mm.*



Figure 2.11 *The Parrots of Zābaj, fol. 30v, 40×110 mm; The Winged People of Zābaj, fol. 30v, 75×167 mm; The Camphor Tree of Zābaj, fol. 30v, 95×115 mm.*

fifteen are slightly or partially damaged, three are heavily damaged, and two are entirely damaged. Nine paintings have patches.

On the contrary, the section on the Sphere of Water (Group 2) is in very poor condition. Out of its ninety-seven illustrations, only fifteen are in good condition while twenty are entirely damaged and thirty-six show a large amount of damage. In addition, patches are present over forty-one paintings of this group. The general aspect of this section is consequently rather poor and defeats any attempt to analyse it properly.

Another section in rather poor condition is the last in the text (Group 5) describing strange peoples and animals. None of the twenty-five paintings is in good condition, while eleven of them



Figure 2.12 *Lycium* (filzahraj), fol. 86v, 91×82 mm; *Clove* (qaranful), fol. 86v, 77×75 mm; *Reed* (qaşab), fol. 86v, 92×74 mm.

are heavily damaged and two are entirely damaged. The majority have also been heavily patched.

The most striking feature of the foregoing analysis is that two large groups of illustrations (Groups 2 and 3) in the middle section of the



Figure 2.13 *Calendula* (adhariyūn), fol. 91v, 30×90 mm; *Lemongrass* (idkhkīr), fol. 91v, 57×90 mm; *Rice* (aruzz), fol. 91v, 48×90 mm; *Spinach* (isfanāj), fol. 91v, 39×90 mm; *Squill* (isqīl), fol. 91v, 32×90 mm.

manuscript are respectively the poorest and the best in terms of their condition. It is possible to postulate that this uneven distribution of damage throughout the manuscript is due to the fact that the codex was dismembered at a fairly early stage. When the London Qazvīnī was purchased by the British Library in 1983, its unbound pages were gathered in small groups,¹⁰ each one identified by a letter of the Latin alphabet and by an increasing number written in pencil, possibly by a former owner of the manuscript who had it in his private library some time in the mid-twentieth century.¹¹ These letters ('a' to 'f') and progressive numbers are still visible on the single pages of the manuscript (see for example cat. 1 at fol. 8r, catalogued as 'f-11' or cat. 15 at fol. 13r, showing 'e-32'). The illustrations in the best condition (corresponding to the above textual-order groups 1, 3 and 4) all belong to pages catalogued under the letters 'e' and 'f'; those in the poorest condition (groups 2 and 5) belong to pages under the Latin letters 'a' to 'd'.¹²

It is therefore possible to suggest that the codex had been in this dismembered condition for a long time before it was acquired by the dealer who brought it to London and that



Figure 2.14 *Cheetah* (fahd), fol. 111v, 85×104 mm.

the individual groups of unbound pages experienced different environmental conditions, some of them ending up more damaged than others.¹³ The groups under the Latin letters 'a' to 'd' obviously suffered more than groups 'e' and 'f'. The result is that, once the folios were rearranged in the British Library following al-Qazvīnī's text, the groups of unbound pages were shuffled so that their damage appears today irregularly distributed.

Colours

The colours used in the London Qazvīnī are a unifying feature of the manuscript. Their distribution through the codex is homogeneous and there is little doubt that the same pigments were used from beginning to end to obtain the various colours. The analysis of colours is difficult where the illustrations present large repair patches which disturb the original work. Nonetheless, the colours used by the 'restorer' on the patches are easily identifiable and do not interfere with a general investigation of the original pigments used in the manuscript.

The colours found in the London Qazvīnī are blue, green, brown, grey, red, pink, gold, white, black, yellow, purple and orange. No technical analysis of pigments was carried out during the restoration of the manuscript.¹⁴ Blue, green and brown are the colours which show the largest variety of hues. They appear constantly in all the illustrations of the London Qazvīnī and are used to cover large areas, water and landscapes, trees and plants, animals' fur, birds' feathers, fish skin and so on.

Blue is present in the manuscript in many different hues. It ranges from a pale blue to a dark azurite/lapis blue. A shade of this colour often met with is a greyish-blue that ranges from pale to dark; it is used especially for fish and the skin of sea creatures. Another shade is a peculiar, very bright blue which characterises feathers on the necks and wings of some birds.

Green is the colour used for grass and plants. Grass is either green or a very distinctive bluish-green – this last probably obtained with indigo¹⁵ – which is met throughout the whole manuscript. Tree and plant leaves are often green or dark green, seldom pale or olive green. Green, olive green and very pale green are also used to paint robes and animal skin.

Brown (pale and very pale) is the typical colour for animal fur and



Figure 2.15 *Gerfalcon (sunqur)*, fol. 120v, 47×73 mm; *Peregrine Falcon (shāhīn)*, fol. 120v, 58×95 mm; *Turtle Dove (shifnīn)*, fol. 120v, 40×95 mm; *Green Woodpecker (shaqrāq)*, fol. 120v, 39×72 mm.



Figure 2.16 The Cross between Dog and Wolf, fol. 134r, 45×114 mm; The Cross between Pigeon and Ring Dove, fol. 134r, 62×41 mm; The Giant 'Uj ibn 'Anaq, fol. 134r, 187×125 mm.



Figure 2.17 *The Jinn Named 'Dilhath', fol. 99r, 62×98 mm; The Jinn Named 'Shiqq', fol. 99r, 88×132 mm.*

especially for the feathers of predatory birds, although these colours are also utilised for different painted areas. Dark brown is seldom used for animal fur. Some other shades are occasionally present for details of landscape or other features: they can be described as purplish-brown, pinkish-brown and reddish-brown.

Grey and pale grey are often found in the manuscript though sometimes the original colour was white (see below). As a rule, greys cover only small areas. Other shades of grey are dark grey, brownish-grey and bluish-grey.

Bright red is also a distinctive colour of the manuscript. A small number of illustrations present a solid red background against which the figures are set.¹⁶ The same vermilion red is also typical of robes and tunics. Other shades of red are met with in the London Qazvīnī but only infrequently: orange-red, dark red, brick-red and purple-red, this last colour being used for tree leaves.

Pink is the colour used for the skin of human figures throughout the codex. It appears in various shades from a very pale pink to a purplish or violet pink. It is sometimes covered by a patina of dirt so that it appears darker than the original colour. Pale pink is sometimes used to paint fish skin.

Gold paint, or possibly gold leaf, is used sparingly but constantly throughout the manuscript. It appears on haloes, tunic arm-bands and hems, and the decorative patterns of robes worn by human figures; on fish gills, eyes and parts of their tails; on the upper edges of wings or as a roundel in the middle of the bodies of birds; on bellies, chests and hindquarters, and on horns and teeth of animals. Gold also sometimes appears in single details of landscape such as large flowers. A small number of illustrations show a large gold frame.¹⁷

White is present throughout the manuscript. Sometimes it appears as pale grey because it is partially covered by a greyish patina of dirt. White is generally used for small areas. It occurs particularly in the section on sea creatures where a number of fish are white with black scales. As a rule, turbans are also white.

Black is used mainly for borders and small details, rarely for coloured areas.

Yellow rarely appears as a pure colour, and is generally associated with brick walls.

Purple is seldom used and always in a light shade, ranging from very pale to pale. It is used for tunics and the skin of some animals.

Orange (bright and pale) is the least represented colour in the manuscript. It is used for fruit and other small details.

In addition to the colours described above, a range of thinned, diluted colours appear in the London Qazvīnī, especially in the section on the constellations (cat. 2–12) but also elsewhere in the manuscript. The colour does not appear as a compact layer which completely covers the blank paper; it gives instead the impression of a wash, the paper underneath still visible through. These diluted colours include blue, green, pink, brown, grey, orange and red.

Finally, diluted red or opaque white have sometimes been used as a preparatory first layer on to which other colours have then been superimposed. These two underlying colours are presently visible in some instances in which the superimposed pigment is missing. However, this technique seems to have been used scarcely in the manuscript.

The distribution of the colours described above is homogeneous throughout the London Qazvīnī. As a rule, the same colours appear in all sections of the manuscript. This is an important point in establishing that the codex displays a unity in its use of painting materials which is not as evident through a stylistic analysis alone.

The vegetal foreground

Another feature that gives the London Qazvīnī a homogeneous character is the landscape, or rather the vegetal foreground that is present in a great number of illustrations. Most of the paintings are rather didactic and of simple composition (a single tree, an animal),

leading the painters to draw a vegetal foreground against which the individual subject is set. In the great majority of illustrations this foreground is quite simple, but in a few cases it is rather more complex.

Throughout the manuscript, nineteen different types of vegetal foreground can be noticed, which can be subdivided into five broad groups.

Type 1: This type of vegetal foreground is by far the most common in the London Qazvīnī. It is rather simplistic: a finely hatched strip of dark green grass, sometimes filled with quick brush strokes, represents leaves or tufts of grass. In some cases small red flowers are also interspersed. This type of vegetal foreground appears in almost half of the illustrations of the London Qazvīnī, a total of 169. Moreover, it is found throughout the whole manuscript, in all the six groups into which the illustrations have been previously subdivided for convenience of analysis. Examples of the Type 1 foreground are cat. 38, 142, 193, 257, 269 and 287.

Type 2: This is also a vegetal landscape, more basic than Type 1. It is represented by a plain horizontal stripe of dark or light green grass, sometimes embellished with quick brush strokes to depict large leaves or flowered plants. This type is also present in all sections of the



Figure 2.18 Willow (khilāf), fol. 81r, 95×73 mm; Peach (khawkh), fol. 81r, 70×75 mm; Spiny Cytisus (dār shayshi'an), fol. 81r, 96×77 mm.



Figure 2.19 Thistle (ushturghāz), fol. 92r, 51×92 mm; Soda Plant (ushnān), fol. 92r, 39×95 mm; Absinth (afsintīn), fol. 92r, 45×95 mm; Chrysanthemum (uqhuwān), fol. 92r, 38×95 mm; Flax (ukshūt), fol. 92r, 36×92 mm.



Figure 2.20 Donkey (ḥimār), fol. 104r, 84×94 mm.



Figure 2.21 Wild Boar (khinzīr), fol. 109r, 55×84 mm.



Figure 2.22 Owl (būm), fol. 116r, 104×65 mm.

manuscript, although it is much less common than Type 1, and it appears especially in the section on the vegetable kingdom (Group 3, cat. 228–35). An example in the animal kingdom is at cat. 341–2. A variation of this type of vegetal foreground is found exclusively in the section on the sea (Group 2, for example cat. 41): a plain green stripe here surrounds the water or rocks; it appears, therefore, in more complex illustrations than those representing a single subject on a plain foreground.

Type 3: This type of vegetal foreground is also simple: diagonal, fine brush strokes form a lower border for the main subject of the illustration, sometimes filled with grass blades, tufts of grass, or tall plants. This type of



Figure 2.23 *The Buffaloes of Rāmnī*, fol. 31v, 78×170 mm; *The Falcons of the Island of Silā* (Korea), fol. 31v, 135×170 mm.



Figure 2.24 *The People with the Face on Their Chest* from the Island of Jāba, fol. 35r, 60×167 mm.

foreground appears a few times throughout the manuscript, although it never occurs in the illustrations of the vegetable kingdom (Group 3). Examples are at cat. 28, 29 and 259.

Type 4: This type is more complex than the three previous groups. It can be described as a curling pale green grass stripe, drawn with thick darker green edges that sometimes form a spiral, and from which tufts of grass and small plants emerge.¹⁸ This type of vegetal foreground is peculiar and distinct from all the others under



Figure 2.25 Caraway (karariyā), fol. 97r, 47×85 mm; Coriander (kuzbura), fol. 97r, 50×78 mm; Cumin (kammūn), fol. 97r, 56×97 mm.



Figure 2.26 Ivy or Lablab (lāblāb), fol. 97v, 34×78 mm; Plantago (lisān al-ḥamal), fol. 97v, 48×81 mm; Caper (laṣaf), fol. 97v, 48×82 mm; Mandrake (luffah), fol. 97v, 50×87 mm.



Figure 2.27 Mole Rat (khuld), fol. 130v, 65×77 mm; Musk Rat (fārat al-misk), fol. 130v, 54×79 mm.



Figure 2.28 *The Giants of Bunān*, fol. 32v, 100×165 mm; *The Lion-headed People of the Island of Atẓwarān*, fol. 32v, 80×165 mm.



Figure 2.29 *Cypress (mistakenly named shajar jawz al-hind in place of sarw)*, fol. 83r, 100×106 mm; *Quince (safarijal)*, fol. 83r, 70×75 mm.



Figure 2.30 *Sumac (summāq)*, fol. 83v, 90×65 mm; *Sandarach (sandarūs)*, fol. 83v, 80×80 mm; *The Tree Called 'Shabāb'*, fol. 83v, 83×77 mm.

discussion. It is the second most represented type in the manuscript (about 10 per cent of the illustrations), though it is much less common than Type 1 (50 per cent). Its distribution throughout the codex, however, is uneven: it appears for the first time and almost exclusively in the section on the vegetable kingdom (Group 3, for example cat. 160–2) and only three times in the illustrations of animals and strange peoples (Groups 4 and 5, cat. 264, 34 and 345).

Type 5: The last type of vegetal foreground represents a true attempt at perspective landscape on a receding plane following the recent developments that had occurred under the Ilkhanids. Horizontal or diagonal lines indicate different



Figure 2.31 Mudar Plant ('ushar), fol. 85r, 85×80 mm; Gall Oak ('afş), fol. 85r, 80×80 mm; Jujube ('unnāb), fol. 85r, 86×75 mm.

ground levels with tufts of grass, pebbles and small rocks, the ground rendered by means of a shading brown colour, and arrangements of simpler types of vegetal foreground. All these elements form the best and the most complex foregrounds found in the London Qazvīnī. It is a true landscape rather than a vegetal foreground since it plays a part in the composition of the illustration. Although it appears rarely in the manuscript, such landscape recurs in almost all the illustrated sections. Examples are at cat. 62, 149, 150–I, 167, 176 and 265.

The most obvious conclusion that can be drawn through an analysis of the recurrence of the five types of vegetal foregrounds in the London Qazvīnī is that they are distributed throughout the manuscript. A particular type is not confined to a single illustrated section with the notable exception of Type 4. The vegetal foregrounds give a unifying character to the manuscript just as it has been demonstrated through the colour distribution.

It can also be suggested that more than one artist was employed as a landscape painter. The craftsman who produced the most complex Type 5 (see for example cat. 62) was the best trained and the most aware of the changes that were taking place at the turn of the fourteenth century in Ilkhanid painting through Chinese influence. The same type of landscape is present in the best illustrated manuscripts produced between the end of the thirteenth century and the beginning of the fourteenth, such as the New York *Bestiary*, the Edinburgh al-Bīrūnī and the *Jāmi‘ al-tawārīkh* codices.¹⁹

On the contrary, Types 1, 2 and 3 are little more than a ground baseline for the illustration in order to set the main subject against a symbolic foreground. These simple types are still in the tradition of thirteenth-century painting²⁰ and it is unlikely that the same painter who produced Type 5 was also responsible for these simplistic devices.

Type 4 (the curling foreground) stands between Types 1–3 and the complex Type 5. Here, the rendition of the grass stripe tends to be an attempt to illustrate a real vegetal foreground rather than a symbolic one. Nonetheless, it is not freed from its strict two-dimensionality. Since this type of foreground appears fairly often in the London Qazvīnī, the hand of a third landscape painter can be suggested.²¹

It will be demonstrated in Chapter 3 that different influences and styles of painting are present in the London Qazvīnī. Here some conclusions have been suggested as to the minimum number of painters who worked on the codex, underlining the fact that vegetal



Figure 2.32 *Pepper Tree* (filfil), fol. 86r, 100×85 mm; *Hazelnut* (funduq), fol. 86r, 72×65 mm.

foregrounds and landscapes in the manuscript strongly suggest the presence of at least three different painters called to contribute to the illustration.

Notes

1. Chapter 5 is devoted to this specific subject.
2. This rule is valid for the great majority of illustrated copies of this text. Minerals are sometimes illustrated in late Persian translations of the *ʿAjāʾib al-makhlūqāt*. The section on Man is missing in the London Qazvīnī; as a rule, this section is not illustrated in other Qazvīnī manuscripts.
3. As will be shown in Chapter 5, the number of illustrations in these sections of the London Qazvīnī is larger than any other illustrated copy produced in the thirteenth and fourteenth centuries.
4. According to the reconstruction of the manuscript, the illustration of Gabriel is at the beginning of fol. 12r whereas the preceding page containing all the relevant text is missing.
5. See the note in the text of cat. 3 in the Catalogue, Part Two.
6. Box 1 contains fols 1–17; Box 2 fols 18–34; Box 3 fols 35–51; Box 4 fols 52–68; Box 5 fols 69–85; Box 6 fols 86–102; Box 7 fols 103–19; Box 8 fols 120–35.
7. Thanks to John Burton of the Oriental Conservation Studio of the British Library who restored the entire manuscript from 1983 to 1987.
8. Simpson 1979: 75.
9. See the note in the text of cat. 5 in the Catalogue, Part Two.
10. Thanks to Hugh J. Goodacre, Curator in the Arabic section of the Department of Oriental and India Office Library Collections of the British Library at the time of its acquisition.
11. Thanks to the dealer who sold the manuscript to the British Library in 1983. In a personal communication of 18 October 1991, he writes: 'the letters and the numbers [written in pencil] on each folio must have been put on between 60 and 70 years ago, when the manuscript was part of a private library. The damage that the pages have suffered would have occurred well before that.'
12. Letter 'a' includes fols 31–41 and 46; letter 'b' fols 30 and 47; letter 'c' fols 24–9, 42–5 and 48–54; letter 'd' fols 99 and 131–4; letter 'e' fols 13 and 100–30; letter 'f' fols 1–11, 14–23 and 55–98. Fols 12 and 135 have no such identification.
13. This also helps to explain the fact that many single folios throughout the manuscript, rather than a complete section at the beginning or at the end, have been lost.
14. They are water-based colours as expected for these types of illustrations on a paper medium.
15. The presence of indigo for bluish-green foliage in thirteenth-century manuscript illustration has recently been confirmed in Contadini 2012: 13 and 166.
16. See the discussion in Chapter 3.
17. See the discussion in Chapter 3.
18. This and the following type of landscape (Types 4 and 5) will also be discussed in Chapter 4 in comparison with similar vegetal foregrounds

found in two other contemporary illustrated codices, the New York *Bestiary* and the Edinburgh al-Birūnī.

19. See the discussions in the Introduction and in Chapter 4.
20. See for example the *Kitāb al-bayṭara* produced in Baghdad in 606/1210 (Istanbul, Topkapı Sarayı Library, Ahmet III no. 2115), and the *Maqāmāt* of 634/1237 (the so-called Schefer Ḥarīrī, Paris, Bibliothèque nationale, no. 5847), also completed in Baghdad. Illustrations are in Ettinghausen 1962: 97 and 117–9.
21. The definition of ‘landscape painter’ is not intended to be a clear-cut statement that one artist first painted the foreground on to which the main subject was then added by a different painter who specialised in animals or plants. It is equally possible that the same artists performed both tasks and were given the responsibility of completing the entire illustration from beginning to end.

CHAPTER THREE

Selected Illustrations from the London Qazvīnī

THE PRESENT CHAPTER deals with a limited number of illustrations from the London Qazvīnī, which – because of their individual features and details or their particular and sometimes unique iconography – deserve discussion within the framework of this book. These illustrations are selected from the 368 paintings of the manuscript and they are discussed individually, or in small groups. They have been chosen because they contribute to a better understanding of the unique qualities of the London Qazvīnī and of the multiple aspects of its illustrative programme.

North Jaziran/Southeast Anatolian evidence

A small number of illustrations in the London Qazvīnī betray an artistic influence that can be circumscribed to the North Jazira or Southeast Anatolia although such a definition is not entirely satisfactory. This region can be defined geographically as two of the three provinces into which the Jazira was subdivided by the Arabs after its conquest: the Diyar Bakr and the Diyar Rabi'a (the third province being the Diyar Mudar, the western region with its capital at Raqqa). The Diyar Bakr is the northern region and corresponds to a portion of Southeast Anatolia, with its capital Amid (the modern Diyarbakr) and the old city of Mayyafariqin (presently Silvan); the Diyar Rabi'a lies today mainly in northern Iraq with a small part in Turkey and in Syria: Mosul, Mardin, Nisibin and Jazirat ibn 'Umar were the most important towns of the Diyar Rabi'a in the medieval period.¹

Here, the definition of North Jazira or Southeast Anatolia, however, is intended to be a cultural as well as a geographical one. It is related to the cultural influences which the Seljuqs of Asia Minor (al-Rūm) brought to the area during the period of their occupation.² These influences found their best expression in the first half of the thirteenth century at the time of the last *atabegs*, especially in the town of Mosul,³ and they must be ultimately linked to the Central Asian origin of the Seljuqs, filtered through their Iranian experience; they are therefore to be regarded as a new cultural wave which was superimposed on previous traditions in the area. As far as book

illustration is concerned, the best expression of such a culture is found in what was sometimes termed by scholars the 'Mosul school of painting'.⁴

Some of the illustrations in the London Qazvīnī, as will be shown below, either reveal the direct influence of this painting convention or can be linked iconographically to the North Jaziran or Southeast Anatolian cultural areas. They represent therefore a late survival of this particular style at the very beginning of the fourteenth century, the suggested date of production of the London Qazvīnī. Among these illustrations are throne scenes and those illustrating the arch-angels, the planet 'Uṭārid and a snake with a heart-shaped knot in the middle of its body.

Throne scenes

There are five enthroned figures among the extant illustrations of the London Qazvīnī: 'The Archangel Azrael' (cat. 15), 'Alexander on the Island of the Dragon' (cat. 42), 'Tblis' (cat. 244), and two illustrations from the story of 'Solomon and his jinns' (cat. 245–6).

The throne on which Solomon sits in conversation with the arch-angel Azrael and a man sitting at his right (cat. 15 and 246) has the simple shape of a low wooden chair with a tall back and two lower upright sides. In the first case, the back seems to be decorated with a golden wavy pattern; two finials embellish the top of the sides. Cat. 246 shows a more lavish version of the same throne: floral patterns decorate the sides and a star-like composition of hexagons is painted on the back; four finials embellish the top and a cloth covers the legs of the throne.

This type of throne is often encountered in Seljuq court scenes of the thirteenth century, especially on *mīnāī* pottery, as has been demonstrated by Otto-Dorn.⁵ The most obvious Seljuq-influenced



Figure 3.1 *Alexander on the Island of the Dragon*, fol. 35r, 80×167 mm.



Figure 3.2 *Iblis*, fol. 99v, 105×170 mm.

throne scene in the London Qazvinī is at cat. 245, representing Solomon in conversation with two men sitting to his right and left; two jinns stand behind the men. The shape of the throne is somewhat different from the above-mentioned types at cat. 15 and 246: the two sides have disappeared and the back is curved; unfortunately its top has been replaced by a painted patch of paper added at a later date, which prevents a proper understanding of its original shape; a short cloth hangs in front of the throne leaving part of its legs still visible.⁶

The most interesting elements in the painting are the two winged figures floating in the air above Solomon's throne and holding a large scarf. The flying figure on the left shows Seljuq features in the long braids and the furred-brim hat; the figure on the right looks rather Mongol because of his facial features, the loops of hair behind his ears⁷ and the crown he wears. Their legs and feet are replaced by floating ribbons.

The iconography of flying figures crowning kings is also well-known in pre-Islamic times, in the Byzantine world, in Sasanian Iran and in Central Asia, as we can see for example on the carving of the top portion of the so-called Barberini Ivory plaque of c. 500 AD in the Louvre, on the reliefs above the grotto of Tāq-i Bustān (end of the sixth century AD), and on the paintings above the niche of Buddha at Qizil in Central Asia (seventh century AD).⁸ According to Emel Esin, the passage of the image of the enthroned king seen frontally



Figure 3.3 Winged figure above the taller grotto at Tāq-i Bustān (detail). End of sixth century AD. The Ernst Herzfeld papers. Freer Gallery of Art and Arthur M. Sackler Gallery Archives. Smithsonian Institution, Washington, DC.

from Central Asia into Islamic art 'is perceptible in the period of the Central Asian Kara-hanli primate dynasty of the Turks, in the eleventh century'.⁹ Monumental winged figures on stone reliefs survive as late as the thirteenth century in the Seljuq tradition, as we can see on two fragments from the main gate of Konya, presently preserved in the museum of the Inçe Minareli madrasa of that town (c. 1220).¹⁰

The winged figures at Qizil wear floating scarves; in addition, the garland they hold is tied by another scarf. The same iconography present at Qizil is commonly found six centuries later on frontispieces of thirteenth-century manuscripts generally attributed to Mosul, such as the *Kitāb al-aghānī*,¹¹ as well as on the frontispieces of the so-called Schefer Ḥarīrī.¹² The same iconography still survives in the *Marzubannāma* manuscript in Istanbul of 1299, where the central enthroned figure is the Prophet Muḥammad.¹³ It is also commonly present on *mīnāī* pottery from Iran, and in particular on Jaziran metalwork¹⁴ in the first half of the thirteenth century where the closest parallels with our illustration can be found.¹⁵

The archangels

Among the best paintings of the London Qazvīnī are three that illustrate the archangels Gabriel (Jibrāʾīl), Michael (Mikāʾīl) and Azrael (ʿIzrāʾīl) (cat. 13–15). The first two archangels are painted on the same page (fol. 12r) and are separated only by two lines of text. Both are set against a red background and seen in left profile, haloed and crowned. They are provided with multiple arms and wings, just as they are described in al-Qazvīnī's text. They are seen in flight (Michael is painted above sea-waves) and both give an impression of power and rapid movement from right to left.

The third painting, illustrating Azrael, the Archangel of Death, is a small masterpiece with a more complex setting and narrative treatment than the two previous figures. Not only does it illustrate the powerful angel but it also depicts the story told by al-Qazvīnī: the gigantic Azrael stands above King Solomon's throne and stares threateningly and in puzzlement at the man near the king; the man, frightened by his stare, is about to flee to India, not knowing that the Angel of Death is puzzled because he is supposed to dispatch the man's soul in India rather than at Solomon's court.

Unfortunately the facial features of all three archangels are damaged but the little that it is possible to infer from their faces and long braids is unmistakably related to codices such as the *Kitāb al-diryāq* in Paris and Vienna (both attributed to the North Jaziran area),¹⁶ and to the Mosul paintings from the *Kitāb al-aghānī*. However, the four creatures floating around the central figures of the double frontispiece of the Paris *Kitāb al-diryāq*,¹⁷ as well as the pairs of flying figures that are often illustrated above enthroned kings, do not depict holy creatures such as angels but merely winged guardian genii. Their role is therefore ornamental and symbolic rather than descriptive or narrative.

It is only with the Munich Qazvīnī of 1280¹⁸ that specific illustrations of archangels and angels occur for the first time in manuscripts. Ettinghausen noticed in the angels in the Munich Qazvīnī what he terms 'Far Eastern aesthetic principles' in the choice of pale colours and in the linear quality of the drawing. However, he also remarked that 'the paintings are on the whole still rendered in a Near Eastern idiom'.¹⁹

The figures of the angels in the Munich codex are indeed in the tradition of thirteenth-century Mesopotamian painting: they are represented as human figures dressed in long tunics whose folds are indicated by shading, and they wear turbans.²⁰ They have been transformed into angels by the painter through the addition of a pair of feathery wings and by their portrayal as bare-footed in the tradition of the flying figures in celebratory scenes.

Al-Qazvīnī describes archangels as all-powerful, immeasurable creatures who have nothing in common with mortal human beings:



Figure 3.4 *The Archangel Gabriel (jibrā'il), fol. 12r, 117×163 mm; The Archangel Michael (mikā'il), fol. 12r, 122×163 mm.*



Figure 3.5 *The Archangel Azrael ('izrā'il)*, fol. 13r, 150×167 mm.

they perform the direct will of God, preside over the destiny of humanity and are provided with many arms and wings. Accordingly, the painter of the London Qazvīnī chose to depict them as large and powerful creatures with multiple wings and arms. Their strength is emphasised by the compact treatment of their bodies, the clenched fist of the archangel Gabriel and the red background. The floating ribbons give a strong impression of fast movement.

The illustrator of the archangels in the London Qazvīnī offers a more original contribution than his colleague in the earlier Munich manuscript. The London paintings seem to spring from a different artistic background, although a gap of about two decades between the manuscripts should not be overlooked. If the painter of the Munich Qazvīnī is embedded in the Mesopotamian tradition of manuscript illustration, the artist of the London manuscript is indebted also to Seljuq models.

A likely source of inspiration for certain details of the three angels in the London Qazvīnī is probably astronomical manuscripts. This is not surprising since constellations were regarded in the Islamic tradition as celestial bodies and are found in the upper spheres of Islamic cosmology along with angels. The text of the *‘Ajā’ib al-makhlūqāt* shows that planets, constellations and angels were all understood as real physical entities despite the fact that the latter are supernatural beings. This is why they are included in a work that deals with the ‘wonders’ of the ‘created things’.

Among the astronomical manuscripts produced in the second half of the thirteenth century, special attention must be drawn to an interesting, nearly complete copy of al-Šūfī’s *Book of the Fixed Stars* copied in the late thirteenth century and presently in the British Library (Or. 5323).²¹ In this codex, for example, the highly ornamental wings of the constellation of Equus Major (*al-faras al-a‘zam*, fols 30v)²² offer the closest parallel to the wings of the archangels of the London Qazvīnī: they end in a compact stylised curl which constitutes an intermediate phase between the traditional motif of the half-palmette and the later transformation of the wing ends into animals’, birds’ and especially dragons’ heads; this becomes clearer when one observes closely the lower curl in the depiction of Equus Major as seen from the Earth, where a convoluted gryphon’s head is recognisable. The wing tips of Gabriel, Michael and Azrael are less ornamental than the drawings of the constellations in the London al-Šūfī manuscript. Nonetheless, they seem to represent a more basic interpretation of the same treatment. This detail contributes to the strong and powerful effect that the painter had in mind for these illustrations.

The al-Šūfī manuscript in the British Library also shows other details shared by the archangels of the London Qazvīnī: the *tiraz* bands on the sleeves of Cassiopeia in the former codex at fol. 19r are decorated with a palmette motif similar to those on the bands of

Gabriel and Michael in the latter manuscript; the halo of Auriga at fol. 22r, embellished with curls inside the frame, is not identical to but strongly reminiscent of the haloes of the three archangels.

Winged figures are also present in other illustrated manuscripts of al-Šūfī's *Book of the Fixed Stars*, the constellation of Virgo providing a good example.²³ But even without wings, large and compact figures seen in profile in different positions and wearing robes with folds are common in the al-Šūfī codices. The size and general features of these figures can be related directly to the archangels of the London Qazvīnī and may have provided a source of inspiration for its painter.²⁴ As many as eight illustrated copies of the *Book of the Fixed Stars* from the thirteenth century have survived, the most recent of which is the British Library manuscript mentioned above. This indicates that it was a popular text at the time and that many copies would have been in circulation, which could have served as models for painters illustrating other texts with related cosmographical subjects.²⁵

Another possible source for the painter of the London archangels is monumental stone reliefs. Extant examples are represented by the powerful winged figures mentioned above from Konya, datable to about 1220, as well as the figures above the *mihrab* of the thirteenth-century caravanserai of Susuz Han between Antalya and Burdur.²⁶ These two isolated examples offer perhaps little evidence to suggest that stone reliefs played a part in the depiction of angels in the London Qazvīnī. Nonetheless, it will be shown below that stone reliefs did indeed play a major role in the representation of the knotted dragon (cat. 335).

The planet 'Uṭārid

The most extraordinary illustration of the whole London Qazvīnī is the first surviving miniature, at fol. 8r (cat. 1). It has been retouched, but all the elements that constitute it are original: in the text referring to the seven planets, 'Uṭārid, or Mercury, is shown as a man holding a black book in his right hand and a long looping black snake in his left; he sits astride a multi-coloured peacock. Anyone familiar with the iconography of the planet Mercury in the Islamic tradition cannot help but be puzzled by this image which is unrecorded elsewhere before the mid-fifteenth century and is unknown in the tradition of illustration of al-Qazvīnī manuscripts.

In Islamic iconography 'Uṭārid is almost invariably represented as the *kātib*, a young scribe who is in the act of writing on a scroll of paper.²⁷ In this form, the planet appears in the Munich Qazvīnī²⁸ and on metalwork showing astrological subjects, such as, for example, a mirror in the Museum of Islamic Art, Cairo, a medallion on the lid of a pen box in Bologna, and the base of a Mamluk bowl in Florence,²⁹ all datable to between the twelfth and the beginning



Figure 3.6 *The Planet Mercury (ʿuṭārid), fol. 8r, 87×165 mm.*

of the fourteenth century. This form is followed precisely in later astrological codices such as the copy of the *Kitāb al-mawālīd* in the Bibliothèque nationale in Paris,³⁰ another copy of the same text once shared by the Keir Collection and the Oriental Institute in Sarajevo³¹ and the Jalayirid *Kitāb al-bulhān*.³²

The association of the image of ʿUṭārid in the London Qazvīnī with the North Jazira or Southeast Anatolia is not evident at first sight given its highly unusual iconography. In order to demonstrate its link with this area, a detailed analysis of literary and other sources and of its possible link with the area of diffusion of Yazidi beliefs is necessary.

(a) *Early literary sources*

There are at least two literary sources which describe the unusual iconography of ʿUṭārid in the London Qazvīnī, both composed in the fifth century AH (eleventh century AD). The first source is al-Bīrūnī's treatise *Kitāb al-taḥfīm li-awā'il sinā'āt al-tanjīm* ('The Book of Instruction in the Elements of the Art of Astrology'), written in 420/1029.³³ ʿUṭārid is described in the text under the short chapter entitled 'Indications as to religions. Pictures of planets': 'ʿUṭārid: disputants in all sects. Youth seated on a peacock, in his right hand a serpent and in the left a tablet which he keeps reading; another picture: man seated on a throne, in his hand a book which he is reading, crowned, yellow and green robe.'³⁴

Al-Bīrūnī's text was certainly popular in the thirteenth and fourteenth centuries as there are extant copies in Persian and Arabic from that period³⁵ ranging geographically from North Africa to Iran.³⁶ Especially interesting because produced in Anatolia is a copy in Persian of the *Kitāb al-tafhīm* (British Library, Add. 7697), which is almost contemporary with the London Qazvīnī and has an illustrated section on the constellations (fols 41v–54v). It is dated 685/1286 and was copied in Konya by Ibn Ghulām al-Qūnyawī.³⁷ An inscription states that the manuscript was later sold in Sivas in 732/1332. The constellations are the only illustrations in the book: they follow the traditional illustrative cycle of al-Šūfī's *Book of the Fixed Stars*, whereas the rest of the codex is conceived as a series of tables and diagrams without any space for illustrations.³⁸ The part of the text describing 'Uṭārid is therefore not illustrated. Indeed, no copy of this text by al-Bīrūnī is known that illustrates sections other than the constellations. Consequently, it can be assumed that illustrated copies of al-Bīrūnī's *Kitāb al-tafhīm* were not direct sources of inspiration for the image of 'Uṭārid in the London Qazvīnī.

The debated pseudo-Majrītī's *Ghāyat al-ḥakīm fī al-siḥr* ('The Goal of the Erudite in Magic') constitutes the second literary source for our illustration of 'Uṭārid. It is a treatise on magic and alchemy composed in the eleventh century which survives today in several thirteenth-century Arabic manuscripts³⁹ as well as in the Spanish and Latin versions executed almost concurrently at the court of Alfonso X and known under the title of *Picatrix*, between the years 1256 and 1258.⁴⁰

The original text of the *Ghāyat al-ḥakīm* was attributed for some time to the mathematician Abū al-Qāsim Maslama ibn Aḥmad al-Majrītī (d. 1004–7 AD),⁴¹ whereas it is now believed that it was written after the most important *fitna* in Muslim Spain (early eleventh century),⁴² probably around 439–42/1047–51, as suggested by Holmyard.⁴³ The immediate sources for the text must have been Arabic treatises written in the Near East in the ninth or tenth century, which were largely influenced by Hermeticism, Sabianism, Isma'īlism, astrology, alchemy and magic and were transmitted (according to the text itself) through the writings of the Sabians, Greeks and Indians.⁴⁴

The passage of the text that relates to the illustration of 'Uṭārid is the following: 'It is found in other [authors] that 'Uṭārid in his sphere appears as a crowned man riding a peacock; in his right hand he holds a rod⁴⁵ and in his left a sheet of paper; he wears a multi-coloured dress.'⁴⁶ In the Latin version for Alfonso X the rod has become a quill: 'Forma Mercurii secundum opinionem aliorum sapientium est forma baronis coronati, equitantis supra pavonem, in eius dextra calamus, in sinistra vero cartam habentis; et eius vestes sunt omnium colorum mixte.'⁴⁷

We notice that the image of 'Uṭārid in the *Ghāyat al-ḥakīm* and

in the *Picatrix* corresponds only in part to the illustration in the London Qazvīnī, in which a snake takes the place of the quill or of the rod. The snake of al-Birūnī's text has become a rod in the Arabic version of the *Ghāya* and has been transformed into a quill in the Latin manuscripts. Strangely enough, it is the Latin quill that recalls the traditional Islamic image of 'Uṭārid as a scribe, whereas the *Ghāyat al-ḥakīm*'s rod better suits the Greek and Roman convention of Hermes/Mercury holding a wand, an image which was still alive in medieval times in Europe. However, two snakes are usually entwined around Hermes' wand, and we may conclude that all three attributes (quill, rod and snake) are present in both the Islamic and the European worlds. They represent therefore variable and interchangeable attributes of an image whose ultimate source is Greek (the culture which first codified mythological iconographies) and which was re-elaborated by the Arabs and re-transmitted to the medieval European world, especially through Spain. This is not surprising since the transmission of most scientific knowledge followed the route of Spain or Sicily from the main centres of the Islamic world in the Middle Ages.

The text concerning the images of the planetary gods is included in the *Ghāyat al-ḥakīm* in Book 2, chapter 10, entitled 'Talismans made by engraving certain figures on stones and metals which belong to the planets'. In this book, therefore, the meaning of the image of 'Uṭārid as well as of the other planets is talismanic. The sources for the section that includes Mercury's image are claimed to derive from a lapidary book (*Kitāb al-aḥjār*) by a certain 'Uṭārid⁴⁸ as well as a text by Apollonius and a work by Kriton on pneumatic talismans, translated by Buqrātīs.⁴⁹

(b) Later literary and iconographic evidence

Only two later images showing the same iconography of 'Uṭārid riding the peacock have surfaced from extensive research. The first example is found in a fragmentary Latin copy of the above-mentioned *Picatrix* (the Latin translation of the *Ghāyat al-ḥakīm*) dated 1459 and kept in the Jagiellonian Library in Krakow.⁵⁰ At fol. 192r the page is filled with four sketchy drawings of no particular artistic interest but showing the four '*formae Mercurii*'; the last one, in the bottom right corner, is the now familiar image of a young curly-haired man sitting on a peacock, holding in his outstretched arms two objects that are barely recognisable as a sheet of paper and a quill.⁵¹

The second illustration is also interesting because it can be considered a survival of the iconography of 'Uṭārid in Anatolia: it is present in a talismanic treatise on the planets included in an Armenian manuscript now in the British Library (Or. 6471), written in 1712 and commissioned or compiled by a bookseller of Van in Eastern Anatolia. Its author states that he collected and then copied



Figure 3.7 'The four formae Mercurii' from a manuscript of *Picatrix* dated 1459. Krakow, Jagiellonian University Library, ms. 793 [DD III 36], fol. 129r.

the various treatises forming his book in Van, Erzurum, Tokat, Izmir, Istanbul and even Cyprus.⁵²

The author of this text wrote the short treatise on the talismans of the seven planets (where 'Uṭārid is included) in Erzurum.⁵³ The text that accompanies the illustrations is closely related to the above-mentioned table describing the pictures of the planets in al-Bīrūnī's *Kitāb al-taḥfīm*. However, in the Armenian codex the treatise on talismans does not comprise a simple chart occupying a single page but a narrative text that requires a full page and includes the illustration of each planet.

On fol. 32v of the Armenian manuscript, 'Uṭārid is described in words and shown on the left side as a man sitting on a throne and holding paper in his hand; facing him on the right side is the figure of a crowned man riding a peacock and holding a snake and a sheet of paper, exactly as in al-Bīrūnī's text. The other six planets also strictly adhere to al-Bīrūnī's description, which always has two images for each planet.⁵⁴

This short Armenian treatise is clear proof that illustrated talismanic planetary texts were available in Anatolia as single complete treatises and were still indebted to al-Bīrūnī as late as the eighteenth century. Al-Bīrūnī's text can therefore be regarded as the source, or at least one of the major sources, for a proliferation of short treatises on talismans, astrology and magic, of which the miniature in the London Qazvīnī could be an early testimony.

If one assumes that the painter of the London Qazvīnī was accustomed to talismanic treatises inspired by al-Bīrūnī's text, for some reason he decided to illustrate 'Uṭārid in his form astride the peacock rather than as the enthroned figure reading a book, that is, one of the two alternative forms offered by al-Bīrūnī and surviving in the later Armenian treatise. In order to find a plausible explanation for this choice, further discussion is necessary.

(c) *Talismanic meaning of 'Uṭārid's peacock and snake*

Following the lead of the *Ghāya/Picatrix* and the later Armenian manuscript, the illustration of 'Uṭārid in the London Qazvīnī bears a talismanic significance. However, al-Qazvīnī's related text has neither an overt nor a hidden talismanic meaning, being strictly astronomical rather than astrological. What is not clear, therefore, is the reason why the painter decided to use this image instead of the



Figure 3.8 'The planet Mercury' from a miscellaneous Armenian treatise on magic, astrology and the calendar dated 1712. British Library, Or. 6471, fol. 32v.

convention of a scribe writing on a scroll of paper, the general rule for the representation of the planet Mercury in the Islamic iconographic tradition. A possible explanation for this might be found in some of the late Persian translations of the *‘Ajā’ib al-makhlūqāt* where a section of the text – however never found in the Arabic copies – is present under the title ‘The Works of the Planets’ Talismans’. This treatise, which appears only in the Persian copies, has not been properly studied yet but it might be important to establish why and when this passage was first included in the translation and if there existed a different Arabic version sanctioned by the author himself.⁵⁵ This possibility, however, does not apply to the text of the London Qazvīnī.

Unfortunately, the text and illustrations relating to the other six planets in the London Qazvīnī have been lost. Being left with the evidence of only one miniature out of the original seven, it is not possible to ascertain whether ‘Uṭārid alone or the whole group of the seven planets was represented in a talismanic manner. The latter hypothesis seems of course more likely.

It is possible to establish a symbolic and a talismanic meaning for two of the attributes of the London Qazvīnī ‘Uṭārid: the peacock and the black snake. The peacock in the Islamic tradition can be a symbol both of evil (it tempted Adam and Eve by whispering in the snake’s ears)⁵⁶ and of Heaven. Its representation is popular in medieval Islamic art, where its positive or negative aspect is not always obvious and its image often loses its original meaning.⁵⁷ In illustrations from a seventeenth-century copy of the *Fālnāma* or *Book of Divination*, such as one in the Arthur M. Sackler Gallery in Washington, DC, the peacock is a symbol of evil since it represents the mount ridden by Eve just before the fall from Heaven; in the painting, Adam is beside her and rides the snake in a revealing iteration of this paired iconography.⁵⁸

According to the beliefs of the followers of the Yazidi sect, about whom more will be said below, the peacock must be worshipped. Their peacock-god is called Malik Ṭā’ūs (‘the Peacock Angel’) but he is identified with the Devil itself, although in the form of the redeemed angel,⁵⁹ assuming therefore a rather ambiguous nature.

The representation of a peacock with an astronomical meaning is found on the wall paintings of Mausoleum I at Kharraqan near Qazvin dated 460/1067–8. In the interior of the tomb eight medallions alternately show peacocks and geometric patterns (rotating triangles and squares), which have been convincingly recognised by Daneshvari as planetary conjunction symbols.⁶⁰

A relationship between the planet ‘Uṭārid and the variegated appearance of the peacock can be inferred from the text of three illustrated folios which depict coloured flowered plants: a single leaf formerly in the Kraus Collection, once in a manuscript, now dispersed, and possibly attributable to the fourteenth century; and two

illustrations in later copies from the same text in eighteenth-century Arabic manuscripts, now in the British Library (Add. 25724, fol. 40v) and the Forschungsbibliothek in Gotha (no. 126, fol. 33v).⁶¹ These two codices are miscellaneous compilations of obscure alchemic and astrological treatises. The text where the illustrated pages are found is part of a treatise entitled *Kitāb al-aqālīm al-sabʿa* ('The Book of the Seven Climates') attributed at fol. 35r to Abū al-Qāsim al-ʿIrāqī.⁶² The few lines of text under the miniature painting report the mythological birth of the planet ʿUṭārid: the new planet took possession of the fourth climate of the earth which suddenly 'brought forth plants and flowers of many colours resembling the variety of the colours of a peacock'.

The image of the snake is also widespread in Islamic iconography; its association with evil actions is much more frequent than the ambiguous nature of the peacock because the snake is regarded as bearing the responsibility for the fall of Adam and Eve.⁶³ Its meaning is generally interpreted as talismanic and can be observed in the Mesopotamian area as far back as Sumerian times: a bowl from the third millennium BC in the British Museum is one of the earliest examples of such an image.⁶⁴

The direct association of Mercury with a snake is of Hellenistic origin: as we have seen before, two snakes are usually twisted around Hermes' wand; in addition, a single serpent lies under Mercury's feet in miniature paintings from Latin manuscripts from the eleventh to the fifteenth century.⁶⁵

The snake plays an important part among the Yazidis. The inclusion of the snake in their sacred iconography is probably related to the above-mentioned cult of the peacock-god Malik Ṭāʾūs. Indeed, the peacock and the snake are both responsible for Adam and Eve's expulsion from Eden.

Through their association with peacock and snake, it is hard to imagine that the cult of the Yazidis did not play a role in the origin of the illustration of ʿUṭārid in the London Qazvīnī. It is necessary at this point to make a historical digression to understand how the Yazidi sect could fit into the present discussion.

(d) *The Yazidis as an iconographic source*

Very little is known of the history of the Yazidi community until recent times.⁶⁶ However, some aspects of their existence up to the time when the London Qazvīnī was copied can be reconstructed. Their religious founder was Shaykh ʿĀdī ibn Musāfir (d. probably 557/1162),⁶⁷ hence the order was given the name of ʿĀdawī and, according to the seventeenth-century Turkish historian Evliya Çelebi, it was acknowledged as a religious community by the Zangid atabeg Nūr al-Dīn Arslan Shāh I, ruler of Mosul 589–607/1193–1210.⁶⁸ They probably became powerful and ambitious towards the end of the rule of the atabegs in the area. Badr al-Dīn Luʾluʾ, ruler

of Mosul 607–57/1210–59, ordered that their chief Ḥasan ibn ʿĀdī should be imprisoned and strangled in 643/1246; Luʾluʾ also sent a punitive expedition against the ʿĀdawīs in 651–2/1254.⁶⁹

It is likely that Yazidi belief was influenced in this period by the Harranian Sabians.⁷⁰ The Sabians had been officially recognised as a religious sect in the year 830 by the ʿAbbasid caliph al-Maʾmūn. They were known as ‘star-worshippers’ since stars and planets played a major part in their rituals.⁷¹ Their cult of the planets is also described by al-Dimashqī in the first half of the fourteenth century.⁷² The main centre of the Sabians was the town of Harran, presently in Southern Anatolia and close to the Syrian border. Apparently, their persecution as a heretic sect started in the early eleventh century. After the final destruction of their town, Harran, by the hands of the Mongols in 1271, its inhabitants – among them a large number of Sabians – were deported to Mosul and Mardin.⁷³ It is useful to add that there is also a close relationship between the prayers to the planets recorded in the *Ghāyat al-ḥakīm/Picatrix* and those ascribed to the Harranian Sabians,⁷⁴ thus establishing a link between the literary tradition of the *Ghāya* and the Yazidis, passing through the Sabians.

We have proof that the Yazidi sect was active and strong at the beginning of the fourteenth century from the writings of the sunni theologian Ibn Taymiyya (661–728/1263–1328) and of another contemporary religious writer, Abū Firās ibn Jamīl ibn ʿUbaydallāh (d. 735/1335). Ibn Taymiyya, who was born in Harran, urged the ʿĀdawī order to moderate both their veneration for Shaykh ʿĀdī and their glorification of the Umayyad caliph Yazīd ibn Muʿāwiya, since they had turned it into a *ghuluww* (literally ‘exaggeration’, a term defining a deviation from orthodoxy).⁷⁵

Abū Firās implies in his *Kitāb al-radd*⁷⁶ that the veneration for the caliph Yazīd was especially strong in the towns along the Euphrates in North Iraq, where the leader of the ʿĀdawīs urged the inhabitants to kill anyone who defamed the caliph. The term Yazīdī (or Yazīdiyya for the sect, as in the title of his work) applies therefore to the ʿĀdawīs of Iraq. From this period on (the first quarter of the fourteenth century), the Yazidis constituted a separate branch of the ʿĀdawīs; the latter settled mainly in Syria and Egypt and became a largely tolerated Sufi religious order, while the Yazidis found their permanent place in North Iraq and the Tur ʿAbdin.⁷⁷ Thus, the geographical area of diffusion of the Yazidi sect was restricted to that North Jaziran region at the beginning of the fourteenth century.

From the works of Ibn Taymiyya and Abū Firās it can be suggested that the end of the thirteenth century and the fourteenth century – especially after Badr al-Dīn Luʾluʾ’s persecutions of the sect and the schism between the Yazidis and the ʿĀdawīs – corresponds to the period during which the obscure Yazidi beliefs became independent both from Muslim orthodoxy and from ʿĀdawī Sufi inclinations. Its local Jaziran diffusion suggests that a great number of Kurds

embraced the Yazidi doctrine, and that its rules were codified in this very period.

Unfortunately, there are no known accounts of the spread of the religion during the fourteenth century, but John Guest supports the hypothesis of a codification of the Yazidi belief towards the end of the thirteenth century with the evidence of an inscription of their most important shrine near Mosul:

The origin of the Lalish shrine remains a mystery. Some experts claim to recognise features of Nestorian architecture, while others consider the building to have been a mountain mosque. A modern inscription (1911–12) above the doorway leading into the shrine of Shaykh ‘Ādī in the Lalish valley north-east of Mosul proclaims the antiquity of their estate: ‘In the name [. . .], the place of Shaykh ‘Ādī al-Ḥakkārī, shaykh of the Yazidis 695’. 695 runs from 10/11/1295 to 29/10/1296. This was the year when [the Ilkhanid ruler] Ghāzān Khān became a Moslem and commenced the persecution of the Nestorian church.⁷⁸

If one assumes that the inscription has been correctly transmitted, this would imply that the Yazidi religion was acknowledged at that time. As part of their belief, the Yazidis rejected the figure of the Prophet Muḥammad and adopted the symbol of the Peacock, Malik Tā’ūs, understood as the redeemed fallen angel,⁷⁹ and worshipped it.⁸⁰

The correlation between the Yazidi cult and the illustration of ‘Uṭarid in the London Qazvīnī is a striking one. The three attributes of the planet Mercury in the London painting are a peacock, a black book and a black snake, and all three are present in Yazidi sacred iconography as we know it today. As we have seen above, Malik Tā’ūs, the Peacock Angel, is worshipped as a god. At the time Guest was writing, the Yazidis possessed a life-size bronze peacock, called the ‘*anzāl*’ (‘ancient’) Peacock, which was safeguarded by their Mīr (spiritual leader) in his castle at Ba‘adri in the Tur ‘Abdin. Stylised figures in metal, called *sanjaks* (banners), showing the image of the peacock, are carried around their villages and exhibited annually to the adherents of the sect. Gertrude Bell is one of several travellers who report on this practice.⁸¹

In the London Qazvīnī, ‘Uṭarid holds a book with a black cover in his right hand. The Black Book, *Maṣḥaf Rās* in Kurdish and *al-Kitāb al-aswad* in Arabic, is a sacred book for the Yazidis. It is one of their two holy books, and it is attributed to the authority of the shaykh Ḥasan al-Baṣrī. According to Empson, its text was completed around 743/1342.⁸²

A black snake is a powerful symbol for the present-day Yazidis. Its image, which is constantly blackened by rubbing shoe polish on its surface, is impressively carved on a stone slab at the main entrance of their shrine at Shaykh ‘Ādī’s tomb, and is considered an object



Figure 3.9 Black snake carved and painted at the entrance of the mausoleum of Shaykh ‘Ādī in the Lalish Valley, north-east of Mosul, photograph taken early 1920s. After Gertrude Bell, *Amurath to Amurath*, London, 1924, pl. 178. The Gertrude Bell Archive, Newcastle University Image M_046.

of veneration: ‘The door is to the extreme left of the wall, which is interesting on account of its curious magical signs [including also crudely drawn peacocks]⁸³ cut in low relief on the stones, the principal being the great vertical snake, carefully black-leaded, to the right of the doorway. Pilgrims kiss this emblem of Satan.’⁸⁴

The Yazidis today do not harm any snake nor interfere with it and the killing of the black snake is especially forbidden among them.⁸⁵ It is also reported that beneath Shaykh ‘Ādī’s tomb there is a sacred cave which contains snakes and running water.⁸⁶ A cast bronze snake is also reported to have been found among other objects at Shaykh ‘Ādī’s tomb during an expedition in 1892.⁸⁷

Finally, the snake is also a protagonist in a Yazidi story connected to the Second, or Noah’s, Flood (they believe that there were two great floods): while the ark was floating above the top of Mount Sinjar, the water slowly subsided and the boat was pierced by a rock. As Noah asked for help from the animals on board, a black snake twisted itself around the hole, sealing it, so that the ark could move on. The snake asked in exchange to be allowed to suck human blood. Noah reacted angrily to such a request and threw it into the fire,

but from the snake's ashes fleas came to life, which are themselves blood-suckers.⁸⁸

In conclusion, it is possible to postulate that the explanation for the inclusion of the image of 'Uṭārid in the London Qazvīnī as a mere copy from lost astrological treatises is not satisfactory. Through the hypothesis of a possible Yazidi inclination in the illustrative programme at the beginning of the manuscript, the painting could represent an early survival of the cult. In the planning of the codex, it was deliberately decided to illustrate 'Uṭārid, and most likely the other six planets, under what seems today an unusual talismanic appearance, not only because of the availability of such images in the region but also with the aim to leave a Yazidi mark – a 'signature' – in the very first illustrations of the manuscript. The suggestion of an affluent Yazidi patron for this manuscript is a fascinating one.

Importantly, the geographical area where our illustration was created must have been confined to the ideal line that runs north-west from Mosul to Diyarbakr via Mardin, since the area of diffusion of Yazidi beliefs was still restricted to this region at the beginning of the fourteenth century. The suggestion of a Yazidi involvement in the production of the illustration representing the planet 'Uṭārid, today so exceptional but so rich in information, therefore provides strong evidence for a North Jaziran or Southeast Anatolian cultural milieu for the production of the London Qazvīnī.

The Knotted Dragon

In the section on the animal kingdom, the Snake is illustrated as having a peculiar heart-shaped knot in the middle of its body (cat. 335).⁸⁹ This knotted serpent appears only once in the manuscript, although other dragons and snakes are present in the codex albeit without the knot (cat. 38, 90, 92 and 332).⁹⁰

In the text, al-Qazvīnī describes the characteristics and the physical appearance of the reptile, which he regards as one of the largest animals living on earth. However, he does not make any reference to an entangled body. Therefore, the image of the Snake in the London Qazvīnī does not derive from any actual description of the animal in the text. Rather, it is borrowed from an iconographic source which is rare in other illustrated manuscripts from this period. No extant thirteenth-century illustrated copy of a *Bestiary* or of al-Šūfī's *Book of the Fixed Stars* (in which the constellation of Draco is represented as a dragon or snake) shows the iconography of the heart-shaped-knotted snake. The only exception seems to appear in a manuscript copied in Sivas in 1272 – but possibly with later illustrations – showing the angel Shamhūrash overcoming the dragon. In the image, Shamhūrash, represented as a knight reminiscent of St George, kills a snake with a heart-shaped knot in the middle of its body.⁹¹



Figure 3.10 Snake (*ḥayya*), fol. 128r, 103×168 mm.

Not surprisingly, the same iconography of a horseman killing a knotted snake was already present in Anatolia before the advent of the Seljuqs of Rum in a Christian Armenian environment. As early as the tenth century AD, the snake is the victim of St George on the reliefs of the Armenian church at Akhtamar on Lake Van, dated between 915 and 921.⁹²

Although rarely found in illustrated manuscripts, knotted snakes or pairs of entwined dragons were nonetheless commonly represented in Anatolia and the North Jazira in an Islamic setting, especially on stone reliefs. At the end of the twelfth century and throughout the thirteenth, the image was understood as both a kingly and a talismanic symbol of power on monumental architecture, especially on the arches of city gates. Many extant examples can be mentioned, among which are the Urfa gate in Diyarbakr (1183–4), one of the entrance gates of Aleppo (early thirteenth century), a stone relief from the fortification of Konya (c. 1220), a gate of the Church of Khidr Elias south-east of Mosul (thirteenth century), and the portal of the caravanserai of al-Khān between Mosul and Sinjar (mid-thirteenth century). This symbolic image was also present at the Bāb al-Ṭilism (Talisman Gate, c. 1221) in Baghdad which was destroyed in 1918.⁹³ The earliest example of the motif of entwined dragons in a predominantly Islamic area seems to occur on an Artuqid coin of Qarā Arslan, ruler of Diyarbakr in 1109–44.⁹⁴

Pairs of looped, rather than knotted, dragons can be arranged

to form a circle which, according to Bishr Farès, has a talismanic, magical and therapeutic meaning. They are famously present on the double frontispiece of the *Kitāb al-diryāq* in Paris of 1199.⁹⁵ Guitty Azarpay sees instead a purely astronomical meaning in these images.⁹⁶

The meaning of the image of the knotted dragon⁹⁷ is ultimately astronomical, as has been well explained by Willy Hartner in a detailed study.⁹⁸ Probably relying on Indian sources,⁹⁹ Islamic astronomers assumed that an invisible eighth planet was present in the sky and was responsible for the eclipses of the sun and the moon. They named this planet *al-tinnīn* or *al-jawzahr*,¹⁰⁰ that is, the Dragon who sometimes devoured either the Sun or the Moon and provoked an eclipse. The pseudo-planet Dragon was at some stage split into two parts (which represent the lunar nodes of the modern astronomers): the Head and the Tail of the Dragon (*ra's wa dhanab al-tinnīn*).

During the twelfth century in Seljuq Anatolia and in the Jazira, this elusive eighth planet found its place in Islamic iconography together with the other traditional seven planets,¹⁰¹ possibly also in manuscripts that have not survived but certainly carved on stone reliefs. The images of the stone bridge at Jazīrat ibn 'Umar (1164) in the North Jazira offer the best examples of the astronomical meaning of the knotted dragon in Islamic iconography.¹⁰² In order to convey the astronomical significance of the image, the two parts of the body of the Dragon, Head and Tail, were tied in a heart-shaped knot in the middle of its body. Initially, the image bore a purely astronomical meaning – a hypothesis supported not only by the reliefs at Jazīrat ibn 'Umar but also by portable objects such as a ewer in the Gulistan Palace in Tehran from the late twelfth century.¹⁰³

Later, the popular image of the knotted dragon degenerated and became merely ornamental. For example, it was exploited in the so-called Sarre Qazvīnī (early fifteenth century or later) and its later copies¹⁰⁴ not only to illustrate most snakes but also to embellish the tails of the mounts of the constellations of Sagittarius and Centaurus, as well as the tail of the bull symbolic of one of the four angels bearing the throne of God.¹⁰⁵

As mentioned above, the knotted serpent appears only once in the London Qazvīnī (cat. 335) whereas other large reptiles throughout the manuscript are represented without the knot in the middle of

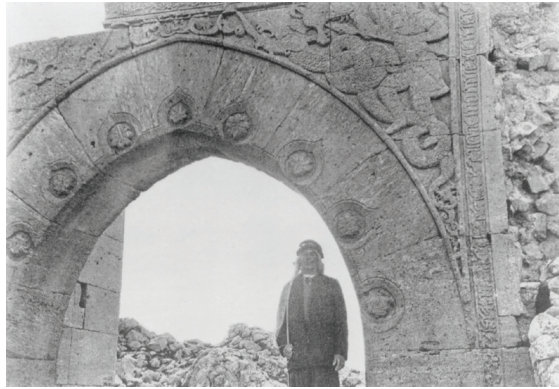


Figure 3.11 The gate of the caravanserai of al-Khān near Sinjar, Iraq, thirteenth century. After Conrad Preusser, *Nordmesopotamische Baudenkmäler – altchristlicher und islamischer Zeit*, Leipzig, 1911, pl. 40.

their bodies. Cat. 38, for example, shows a large snake that has just swallowed an animal. Its body does not show the heart-shaped knot but its open mouth, bifurcated tongue and short, proboscis-like, curling nose reveal a familiarity with images found on stone reliefs from twelfth- and thirteenth-century Anatolia, such as those found at Ahlat, Erzurum and Sivas.¹⁰⁶ The same type of dragon's head is also present in the *Kitāb al-diryāq* manuscript of 1199 in Paris.¹⁰⁷

It is not clear why the choice was made to represent only one of the six large reptiles illustrated in the London Qazvīnī as a knotted snake, but since it does not display the later ornamental degeneration of the Sarre Qazvīnī it must have been meaningful to the makers of the manuscript.

In summary, the knotted dragon originated in an East Anatolian, non-Islamic environment. With the cultural changes brought about in the area by the Seljuqs, the same iconography found a new astronomical and astrological character. Under the last *atabegs*, the image was also interpreted as a symbol of power and of talismanic efficacy. After the Mongol conquest of the region, the original significance of the knotted dragon began to vanish slowly, and the image became increasingly conventional.

The isolated image of the knotted snake in the London Qazvīnī must carry its original meaning – although it still escapes us – and can be linked to the astronomical and symbolic tradition of the late Seljuq period in Southeast Anatolia and the North Jazira.

Narrative illustrations

The Man from Isfahan Rescued by the Giant Bird

Two illustrations placed in the same page of the London Qazvīnī are especially striking because they represent a unique narrative sequence. Both paintings (cat. 62–3) illustrate the text concerning the story of a man from Isfahan who managed to escape from a desert island in the Persian Sea by grabbing hold of the legs of a gigantic bird whose nest was on the top of a tree found on that island.¹⁰⁸

The most dramatic moment of the whole story – which is rather long – occurs when the man dares to be carried off in the air by the bird in order to have a chance to leave the island. He hopes that the bird will not hurt him and will take him safely to some place where he will find other people. The story ends happily.

Those familiar with the illustrations of the *ʿAjāʾib al-makhlūqāt* are well aware that the image of the man hanging from the legs of the bird in full flight is perhaps the most distinctive of the whole text. The image is so familiar that it was chosen as the subject of a stamp by Mahra in South Arabia.¹⁰⁹ Illustrated manuscripts of the *ʿAjāʾib al-makhlūqāt* – Arabic, Persian and Ottoman Turkish copies beginning from the earliest extant works, the Munich and



Figure 3.12 The Man from Isfahan Rescued by the Giant Bird, fol. 39r, 95×130 mm and 90×170 mm.

Istanbul Qazvīnī of 1280 and 1322, to late nineteenth-century¹¹⁰ manuscripts – invariably represent the story with a single illustration showing the large bird in flight and the man hanging from its legs.¹¹¹

The depiction of the story in the London Qazvīnī is unique because there are two paintings in place of the usual one and neither one shows the man and the bird in flight. The illustrator was unaware of, or perhaps ignored, the recently established iconography in the Munich Qazvīnī, which was to be perpetuated for centuries to come.

The first of the two illustrations (cat. 62) portrays a large rooster-like bird resting atop a tree during the night whereas the man was ignored by the painter. The miniature itself, with its complex landscape and the starry night sky, is one of the most appealing in the manuscript. The reason why only the bird is illustrated may be explained by the fact that the text is under the chapter entitled 'The Animals of the Persian Sea': the bird, not the man, is the main character of the story and it is illustrated, like all other animals, in its 'scientific' isolation, rather than as part of a narrative.

The second illustration (cat. 63) seems instead to contradict the above statement since it is descriptive of the story. It depicts the view the flying man can observe, a genre scene of the village where the man will safely land: a farmer with his two oxen tied to the wheel of a mill and people standing at the doors of a building. The man from Isfahan, the protagonist of the whole story, was ignored once again by the illustrator.

The painter therefore was creative in portraying both the quiet anticipation of a dramatic moment – the bird resting on the tree the night before the man grabs its legs – and the final happy conclusion of the drama when the man appreciates that he is finally safe. Whether or not creative originality and a psychological interpretation of the story took place, it is also evident that the illustrator merely depicted literally the words he was reading in the close vicinity of the space left for his paintings. The first illustration is placed to the immediate left of the text describing the huge bird resting on the tree; the second one is located just above a line reading that the man can see villages while he is still in flight. The line of text that describes the moment when the man grabs the bird's legs is located between the two illustrations and may simply have escaped the painter's attention and imagination.

The Lemon

An isolated and therefore conspicuous narrative illustration is present in the section of the Vegetable Kingdom under the Trees (cat. 177). Under the entry on the 'Lemon' the text explains that the fruit of this well-known tree is also an antidote to the snake's venom (fols 88v–89r) and narrates a lengthy story on three brothers

who are bitten by a snake one after the other in their attempt to get rid of it; only the third of them manages to survive after realising that the orchard has lemon trees and taking advantage of the properties of their fruit. The Lemon Tree is firstly illustrated with the same repetitive conventions as the other plants in this section, a small, curving tree with yellow fruit (cat. 176); on the facing page, however, the reader is caught off-guard by the eye-catching illustration of a man in a garden who battles a large snake while an onlooker stands on the terrace of a building. The small botanical illustration dutifully comes first, but the second image is subversive



Figure 3.13 A Story: The Lemon as an Antidote, fol. 89r, 95×130 mm.



Figure 3.14 Lemon (laymūn), fol. 88v, 87×86 mm.



Figure 3.15 *The Animal Called 'Mi'rāj' on the Island of the Dragon*, fol. 35v, 40x80 mm; *The Human-headed Fish*, fol. 35v, 45x75 mm; *The Fish Swimming on the Surface of the Sea*, fol. 25v, 40x95 mm; *The Fish That Is Able to Set Fire*, fol. 35, 25x75 mm; *The Flying Fish*, fol. 35v, 35x80 mm; *A Fish*, fol. 35v, 38x85 mm.

because it emerges so obvious, large and loud throughout this monotonous part of the text. In addition, the viewer is left guessing which one of the three brothers is represented in the painting; one would assume it is the person who survived the snake bite, but the illustration remains a case of visual ambiguity in which the whole story is synchronically rather than diachronically frozen in a single image, in its turn counterbalanced by the scientific representation of the lemon tree at the beginning of the entry.¹¹²

There are a few other instances in which two different paintings are devoted to a narrative entry. The main illustration in the story of 'Alexander on the Island of the Dragon' (cat. 42) is followed by a smaller one that represents the strange animal called 'Mi'rāj' (cat. 43), which was presented to Alexander as a gift by the people of the island for having freed them from the terrible dragon. The second miniature has a 'scientific' rather than a narrative quality, with the animal represented in isolation not unlike the Lemon Tree in the discussion above (only in reverse order).

The long text on 'Solomon and his Jinns' includes five illustrations: the first two are rather standard enthroned scenes where the seated king is flanked by his accolades in all shapes and forms, mostly ghastly or monstrous (cat. 245–6), whereas the remaining three paintings only show Solomon's jinns in isolation: facing each other disguised as a hare and a wolf (cat. 247), in the shape of a dog (cat. 248) and as a lute-playing monkey (cat. 249). Once again, these three illustrations seem to have the function of balancing the first two narrative ones with a 'scientific' likeness of the jinns as representatives of the animal kingdom.

A properly balanced pair of illustrations follows instead in the story of the 'Man and the Girl Kidnapped by a Jinn' (cat. 251–2). A man encounters a young girl in the desert wilderness and she confides that she had been kidnapped by a jinn; the man rides away with her on his camel, they become intimate and he protects her from any attempt by the jinn to recover his prized possession with the help of devotional tools. The two paintings are sequential and nicely frame the story: the first one depicts the moment when the man meets the girl for the first time outside his tent, whereas the second one, even though somewhat ambiguous because the jinn and the man look



Figure 3.16 *The Jinn That Looks Like a Dog*, fol. 101r, 68×86 mm; *The Jinn That Looks Like an Ape*, fol. 101r, 65×75 mm.

alike, shows the episode where the girl is protected by the kneeling camel and by the recitation of verses from the Qur'an.

A more straightforward sequence is offered by two illustrations at the end of the manuscript. The 'Siamese Twins from Yemen' are represented first as a two-headed, four-armed naked figure (cat. 364) and subsequently as a single fully dressed woman (cat. 365): the story tells that one of the two parts of this monstrous creature died and was cut off from her body so that the surviving part could continue to live a normal life.

The next pair of illustrations, just before the close of the book, returns to a similar pictorial device as the sequence of the Lemon Tree. The amazing talking rook Abū 'Ajwa is shown first in isolation as an unusual animal (cat. 366) and then sitting in a cage in conversation with Caliph al-Ma'mūn as narrated in the story.

When compared with other early copies of this text (see Chapter 5), it becomes evident from the above discussion that the London Qazvīnī is unique as regards the recurrent and almost rhythmic presence of narrative illustrations throughout its text.



Figure 3.17 The Man and the Jinn That Turns into a Serpent and a Camel, fol. 101v, 110x140 mm; The Man and the Girl Kidnapped by a jinn, fol. 101v, 78x168 mm.



Figure 3.18 *The Man and the Girl Kidnapped by a jinn*, fol. 102r, 77×109 mm.

Distinctive animals

The Chinese dragon

In addition to the Anatolian-influenced knotted dragon described above (cat. 335) and a large snake of nondescript derivation (cat. 38), three illustrations in the London Qazvīnī represent large snakes, dragons and sea dragons (cat. 90, 92 and 332) which are inspired by Chinese models.

Cat. 90 is heavily damaged. Both body and head of the animal look ordinary and they are not inspired by specific models. However, a Chinese influence is recognisable in the painting's background which is filled with lightly coloured red and blue clouds.

The dragon at cat. 92 has an ordinary scaled, snake-like body but a pronounced Chinese dragon's head: gold oblong eyes, a short curling proboscis, a long red tongue, a gold horn, crest and goatee beard. In front of its open mouth, a gold 'flaming pearl' is visible against the blank background: it represents the Chinese pearl that appears as early as the T'ang period, the original symbolism of which is unclear.¹¹³ The earliest



Figure 3.19 *The Siamese Twins* from Yemen, fol. 135r, 93×122 mm and 70×103 mm; *The Human-headed Rook*, fol. 135r, 53×50 mm.



Figure 3.20 *The Human-headed Rook*, fol. 135v, 85×167 mm; *The Horned Horse and the Winged Fox*, fol. 135v, 69×162 mm.



Figure 3.21 *The Sea Dragon*, fol. 47r, 90×170 mm.



Figure 3.22 *Sea Dragon (tinnin)*, fol. 48r, 90×166 mm.

appearance of the flaming pearl in a Persian manuscript seems to occur in the double frontispiece of the *Ta'rikh-i jahān-gushāy* of 688/1290 in Paris, which shows an awkward integration of Chinese motifs into a traditional Islamic composition.¹¹⁴

Cat. 332 is definitely a Chinese dragon. Not only is its head similar to the fantastic animal of cat. 92, but also its body is entirely derived from immediate Chinese models: two clawed legs extend from its snake-like body; a floating blue 'wing' is attached to its left leg; tufts of hair extend from its left leg and the body; a gold crest frames the upper part of its body. This very image appears in Honan, China, as early as the third century BC on a pottery tomb tile at Loyang, and on painted silk found at Ma-wan-tui from 174 to 145 BC.¹¹⁵ It is present in the ninth century AD at Bezeklik in Central Asia, during the T'ang period, but it did not find its place in Islamic iconography



Figure 3.23 Dragon (thu'ban), fol. 127r, 95×167 mm.

until the advent of the Mongols. The first recorded images of this type of Chinese dragon are found on frieze tiles at the Ilkhanid palace known as Takht-i Sulayman (1270–5) in north-western Iran as well as on other lustre-painted and *lajvardina* tiles of the thirteenth and fourteenth centuries. The motif became extremely popular from the Timurid period in the fifteenth century onward. The image in the London Qazvinī represents therefore one of the earliest examples of a forthright Chinese dragon in Islamic illustrated manuscripts.

The 'Anqā bird

One of the animals that are exclusive to al-Qazvinī's bestiary is the fabulous 'Anqā bird. It is peculiar because the text describes it as a fantastic animal, thus capturing the imagination of the painter, who invariably devotes a large and eye-catching illustration to this bird. Given the unusual character and the vagueness in the description of its physical appearance (the only useful information being that it is gigantic), this creature has been the subject of different iconographic interpretations in various manuscripts. Thus, the 'Anqā is represented in the Munich Qazvinī as just a large pigeon-like bird with no particularly terrifying attributes (fol. 193r) and in the Istanbul

manuscript as a colourful oversized owl with a fanciful long tail (fol. 166r). In the Sarre Qazvīnī (FGA fol. 54.104v) and in the many later manuscripts inspired by this codex, the 'Anqā has been transformed into a mythical, heraldic, double-headed eagle viewed frontally.¹¹⁶ In manuscripts from the Iranian area it is generally identified with the *sīmurgh*, consequently borrowing its most common iconography as a Chinese-derived phoenix.

In the London Qazvīnī, the 'Anqā bird (cat. 313) is a multi-coloured, combative rooster whose only extraordinary characteristic is the two long, gold feathers which protrude from its eyes. Its tail is also rather peculiar: it is large and fan-shaped and ends in a sort of lobed, pointed arch. This 'Anqā is very similar to the above-mentioned giant bird resting on the top of a tree in the story of the man from Isfahan (cat. 62). The image of an enlarged rooster evidently corresponded to the painter's idea of a fabulous gigantic bird and it appears at a time when the convention of representing any kind of fabulous bird in Persian Islamic illustrations as the Chinese phoenix-inspired *sīmurgh* was not yet firmly established.

The 'Şannāja'

The introduction to the 'Anqā as a peculiar and exclusive animal in al-Qazvīnī's text also relates to the animal called 'Şannāja', which is even more fantastic than the giant bird having been classified under the chapter on the 'Insects and Creeping Animals', at the same time being the 'largest animal on earth' (cat. 339). The Şannāja is a beast that no one has ever seen, living in the mountains of Tibet and oddly reminiscent of both the myth of the Abominable Snowman and of the Greek Gorgon.¹¹⁷ In the Munich Qazvīnī (fol. 202r), the Şannāja is a truly fantastic creature: its large head has two round black eyes and bristling hair and a pointed snout; its body, seen frontally, is formed by an oval tortoise-like shell around which protrude six short paws.¹¹⁸ The Istanbul Qazvīnī turns it into a winged quadruped seen in profile that looks like a crossbreed between a horse and a cow; it is not particularly terrifying or peculiar and is relatively small in size since it occupies about one third of the text block (fol. 172r).¹¹⁹ In the Sarre Qazvīnī (fol. 54.112r), the Şannāja is instead a terrifying feline viewed in profile: it is provided with long claws, a tuft of hair springs from its neck, and its fur is piebald.¹²⁰ In later manuscripts, this beast assumes various aspects such as a feline, a bear and a reptile with a ferocious head and fantastic attributes such as wings.

The representation of the Şannāja in the London Qazvīnī is equally striking. It lends itself to be the largest illustration in the manuscript, almost a full-page miniature but for four lines of text. It is proportionally larger than its corresponding images in the Munich and the Sarre Qazvīnī. Its body is massive, covered with hair, and its skin shows extraordinary folds. This Şannāja is not comparable to



Figure 3.24 *The Animal Called 'Sannāja', fol. 129v, 205×168 mm.*

any known animal, insect or creeping creature. Its frontal stance is similar to that in the Munich Qazvīnī but the two illustrations have little in common. A source for this illustration is hard to find and it seems obvious that this animal comes from the painter's imagination rather than being based on any earlier models.

The head of the Ṣannāja can be described as demon-like due to its broad nose with large nostrils and its mouth with short tusks and emerging smoke. This head recalls images of demons used for talismans and of *divs* which appear in the *Shāhnāma* manuscripts. Whereas no illustrated copy of the *Shāhnāma* is known to have survived before the turn of the fourteenth century,¹²¹ paintings illustrating demons, sometimes used as talismans, were popular and produced as early as the twelfth century, as is demonstrated by one example in the British Museum.¹²² The painter of the Ṣannāja in the London Qazvīnī, perhaps the same who represented the planet 'Uṭārid in its talismanic appearance, must have found his inspiration either in talismans drawn on a sheet of paper or in now lost illustrated treatises.¹²³ This talismanic aspect is reinforced by al-Qazvīnī's text itself, since the Gorgon-like Ṣannāja is able to kill other animals with its sight. Consequently, it possesses an 'evil eye' which must be exorcised with the help of a talisman.

The Rhinoceros

The Rhinoceros is also worthy of a brief discussion. This animal (*karkadann* in Arabic) is mentioned twice in the text. At fol. 31r it is described and illustrated as a single-horned donkey (cat. 28) in the chapter devoted to the islands of the Chinese Sea; at fol. 112r it is instead reported as 'elephant-like, but its nature is more like that of a bull' (cat. 277) in the section on the 'Wild Animals'. The painter of the second miniature represented it as an ox or a bull rather than an elephant.

The latter illustration is peculiar because the Rhinoceros looks like a domestic, rather than wild, animal: it wears a collar and a muzzle and a short leash is rolled around its neck. There is no apparent explanation for this, considering the fact that the *karkadann* is supposedly one of the most powerful and ferocious beasts on earth. No literary or iconographic source seems to mention either a muzzle or a leash in connection with the rhinoceros. Ettinghausen devotes a few pages to the 'tamed *karkadann*' in his monograph on the unicorn,¹²⁴ thus the image in



Figure 3.25 *The Tree Dwellers of the Island of Rāmnī*, fol. 31r, 85×170 mm; *The Rhinoceros of Rāmnī*, fol. 31r, 95×160 mm.



Figure 3.26 Rhinoceros (karkadann), fol. 112r, 123×135 mm.



Figure 3.27 Dog (kalb), fol. 113r, 56×78 mm.

the London Qazvīnī may perhaps represent an early testimony of this type of rhinoceros which became popular in the sixteenth century.

A Chinese source not mentioned in Ettinghausen's study may also be useful in this discussion. According to it, the envoy of the Ta-shi (a general word for Arabs) to the Song emperor in 993 AD stated that elephants and young rhinoceroses were caught in his country with a lasso.¹²⁵

Similarly to the Rhinoceros, the small painting illustrating the Dog (cat. 278) as a wild animal is peculiar because this *saluki*-like

dog chewing a bone wears a red coat on its back. The coat is tied around its chest and belly. This dog is therefore a domestic or semi-domestic animal, which al-Qazvīnī mentions was used by hunters to find game due to its acute sense of smell. This may have been the image the painter was accustomed to, through either other illustrations or observation from real life. In his *Conference of the Birds*, the poet Farīd al-Dīn ‘Aṭṭār indeed mentions that dogs at the royal court used to wear coats.¹²⁶

Distinctive recurrent details

Plaster-bonded brickwork

The buildings represented throughout the London Qazvīnī are invariably shown as made of bricks dressed in so-called plaster-bond: a small gap is left between each brick which is filled with plaster, thus offering a decorative effect that is illustrated in the paintings through the use of two contrasting colours.

The nine illustrations in which buildings with plaster-bond are found are in the sections on the Islands, the Rivers, the Trees and the Jinns, thus emphasising their consistent presence and distribution in the codex. They are seen in ‘The Dog-headed People of the Island of the Palace’ (cat. 40); ‘The Man from Isfahan Rescued by the Giant Bird’ (cat. 63); ‘The Island of the Informing Animal Called “Jassāsa”’ (cat. 64); ‘The Island of the Dog-headed People’ (cat. 70); ‘The Island



Figure 3.28 *The Island of the Informing Animal Called ‘Jassāsa’, fol. 40r, 80×165 mm.*



Figure 3.29 *The Island of the Sleep-inducing Trees and Flowers*, fol. 43v, 75×100 mm; *The Island of the Church of the Crow*, fol. 43v, 174×170 mm.

of the Church of the Crow' (cat. 76); 'Amr ibn al-Ās and the River Nile' (cat. 120); 'A Story: The Lemon as an Antidote' (cat. 177); 'The Man and the Jinn That Turns into a Serpent and a Camel' (cat. 250); and 'The Singer Ibrāhīm and the Jinn Disguised as an Old Man' (cat. 254).

The colours used for the bricks, though predominantly yellow, are also varied: pale brown (cat. 40), pale orange (cat. 63), pale pink (cat. 64 and 120), yellow (cat. 70, 177, 250 and 254) and pale blue (cat. 76). The plaster between the bricks is either white or pale grey.

All relevant illustrations in the London Qazvīnī depict the most basic plaster-bond technique, that is, walls formed by rows of horizontal bricks without the decorative patterns often created in actual architecture by means of bricks set in

staggered rows or distinctively glazed. The plaster-bond technique was widespread especially in the Iranian world but also in Anatolia and Syria from the eleventh to the fourteenth centuries.¹²⁷ Extant buildings whose walls are decorated with plain bricks laid horizontally are perhaps less common than those forming decorative patterns and with glazed brickwork, although many examples are found in this period.

In Iran, interesting early examples are provided by the tomb towers of the first half of the eleventh century at Damghan, the Gunbadh-i Surkh of 1147 in Maragha, the Masjid-i Jāmi' of 1158–60 of Ardistan, the Imāmzāda Yaḥyā of 1260–1 at Varamin, and a later example in the impressive walls of the mosque of 'Alī Shāh of c. 1310–20 in Tabriz.¹²⁸ In north-east Syria, the best example is seen in the Qal'at Jabar of the beginning of the twelfth century, lying on the left bank of the Euphrates.¹²⁹ In Anatolia, good thirteenth-century models are provided by the minaret of the Ulu Cami and the tower above the tomb of Kai-Kāvūs of 1217, both in Sivas,¹³⁰ the minaret of the Ulu Cami in Malatya and the Tepsi Minare in Erzurum.¹³¹

Plaster-bond bricked buildings in the illustrations of the London Qazvīnī are therefore distinctive but do not suggest a limited geographical distribution for the edifices they represent.

The broken arch

Two of the nine paintings illustrating the plaster-bond brick buildings also depict apertures crowned by a 'broken arch',¹³² namely 'The Island of the Dog-headed People' (cat. 70) and 'The Singer Ibrāhīm



Figure 3.30 *The Island of the Dog-headed People*, fol. 41v, 88×170 mm.

and the Jinn Disguised as an Old Man' (cat. 254). This type of arch in the London Qazvīnī can be compared to both surviving architecture and other illustrated manuscripts.

In extant buildings, the broken arch is never structural but generally used as a decorative device for windows, archivolts or entrance vaults. In this form, it is found across a large area ranging from Central Anatolia to Iran in the twelfth and thirteenth centuries. It appears in Konya on the window arch of the twelfth-century tomb of Kilij Arslan,¹³³ in the thirteenth century, it is found above the apse of the Church of Khidr Elias south-east of Mosul.¹³⁴ The broken arch was still in use above windows of Anatolian mosques in the late thirteenth century, for it is found, for example, on the Eşrefoglu mosque at Beyşehir, dated 1298.¹³⁵ In Iran, it can be noticed on the Imāmzāda Ja'far of 1278–9 at Qumm.¹³⁶ A variation of the Iranian broken arch was defined by Pope as a 'broken-headed arch': here, the vault of the broken arch is crowned not by a horizontal line but by a pointed arch; the broken-headed arch was used, for example, to crown the doors of the cloister of the shrine of Bāyazīd at Bistam, dated 1302.¹³⁷

The broken arch also appears as an architectural decorative device to ornament blind arches of tombs and door vaults. It is found in this form once more above the entrance in the Church of Khidr Elias near Mosul¹³⁸ and it is common in the fourteenth century, crowning blind arches on the exterior of many tombs in the Lake Van area.¹³⁹

'The Island of the Dog-headed People' shows two decorative roundels on both sides above the broken arch. The opening under the arch must be interpreted as the entrance of the building. Such roundels were a common decorative device that filled the spandrels

of the arches of monumental entrances to mosques and madrasas. Examples from late thirteenth-century Anatolia are provided by the entrance of the madrasa of Haji Kilij at Kayseri of 1275 and in the Eşrefoglu mosque at Beyşehir dated 1298, mentioned above.¹⁴⁰

'The Singer Ibrāhīm and the Jinn Disguised as an Old Man' illustrates the vault of a cellar crowned by a broken arch. The broken arch, in this case, is intended to represent an interior vault, but its role is decorative since it is not structural as the painting would have us believe.

The broken arch also appears in illustrated codices. In some manuscripts from the thirteenth century, the same visual effect of the broken arch is obtained by means of a framing 'spandrel' device.¹⁴¹ In these paintings, the profile of the broken arch is created by two spandrels resting on columns on either side of the miniature. In some cases, only the spandrels are present at the upper corners of the painting whereas the columns have disappeared, the horizontal upper margin of the illustration completing the profile of the broken arch.

As Grabar points out, this sort of architectural space 'does not represent a building at all but is merely a symbolic indication of interior space. [...] Frame architecture consists of clear architectural elements – a column, an arch, a lintel, at times a small dome – with no specific function. The setting is not a house, a palace, or a mosque, but it could be turned into any of those in context or through the addition of a special prop, such as the lamp indicates the mosque.'¹⁴²

Several examples of this type of arch indicating interior space are found in the dispersed Dioscorides manuscript of 1224¹⁴³ as well as in other illustrated copies of the same text¹⁴⁴ and in the Paris *Maqāmāt* of 1237.¹⁴⁵

Similarly to the plaster-bond brickwork, the depiction of the broken arch in the London Qazvīnī does not suggest a limited geographical distribution for the creation of this codex. Rather than providing a true architectural decorative detail, it seems that the painter was following an established style available to him through earlier illustrated manuscripts.

Ornamental tiles

Another interesting architectural detail is found in the illustration of 'The Island of the Talismanic Statue on the Tower' (cat. 74). The circular tower is represented as a building covered in decorative hexagonal tiles, with a disproportionately large circular gold terrace at the summit.



Figure 3.31 *The Island of the Talismanic Statue on the Tower*, fol. 43r, 140×170 mm.

This profile is reminiscent of minarets found in thirteenth-century Anatolia such as the Kizil Minare of c. 1220–30 in Aksaray and the minarets of the Gök Madrase of 670/1271 in Sivas.¹⁴⁶

No extant minaret in Anatolia or Iran is similarly tiled, although an analogous decorative effect can be seen in minarets ornamented with glazed brickwork. Such minarets were widespread in Iran and Anatolia in the twelfth and the thirteenth centuries, ranging from Isfahan (the minaret of Sareban, mid-twelfth century) to Konya (the minaret of the Ince Minareli Madrase of 679/1280).¹⁴⁷ In particular, the decoration on the minaret of the Yakutiye Madrase in Erzurum of 710/1310 shows a similar pattern to that achieved by the painter in the London Qazvīnī.¹⁴⁸

Hexagonal tiles decorated in the lustre technique are sometimes found in thirteenth-century Iran: examples are still in situ on the *mihrab* of Ḥabīb ibn Mūsā in Kashan and in the mosque of ‘Alī at Quhrud.¹⁴⁹ A large jar datable to the second half of the thirteenth century, once in a private collection in Germany, has an overall lustre-painted decoration divided into moulded hexagonal panels similar to the effect achieved on the tower in the illustration.¹⁵⁰

The inspiration for this tiled tower may therefore derive from portable ceramic objects decorated in the lustre technique rather than from actual architectural decoration.

Furniture

The illustrations of the London Qazvīnī are consistently poor in details of furniture and objects of daily life. This is partly due to the nature of the text, throughout which interiors are rarely encountered.

An interesting such detail is present, however, at cat. 245 and 246, which illustrate stories from the life of Solomon and his jinns. Here, the people and the jinn beside Solomon’s throne sit on folding chairs. These stools have curved legs, a metal boss at the junction of the legs, a cushion, and a piece of cloth hanging from one side of the cushion. According to Kurz, these objects were fashionable in twelfth- and thirteenth-century Iran and Iraq and at least one such chair still survives in a private collection in Paris.¹⁵¹ This type of portable stool is commonly represented in early thirteenth-century illustrated manuscripts such as the *Kitāb al-aghānī* of 1217–19,¹⁵² and the dispersed Dioscorides codex of 1224.¹⁵³



Figure 3.32 Minaret of the *Yaquitiye Madrasa* in Erzurum, dated 1310. Photograph courtesy of Bernard O’Kane.

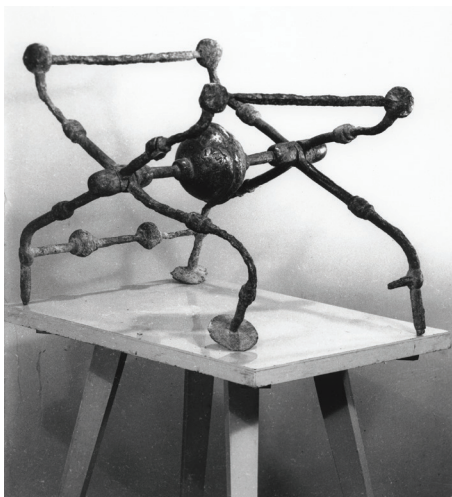


Figure 3.33 *Folding chair, thirteenth to fourteenth century. Tehran, private collection. After Otto Kurz, 'Folding Chairs and Koran Stands', in R. Ettinghausen (ed.), Islamic Art in The Metropolitan Museum of Art, New York, 1972, pp. 299–314, fig. 3a.*



Figure 3.34 *The People of Gog and Magog, fol. 131v, 74×133 mm; The 'Munsuk' People, fol. 131v, 52×95 mm.*

The piece of cloth hanging from one side of the cushion seems to represent an unrecorded detail in earlier illustrations, suggesting that the painter was copying from real objects rather than from other illustrated codices.

Red background

Seven illustrations throughout the London Qazvīnī are set against a solid red painted background. These are 'The Archangel Gabriel' and 'The Archangel Michael' (cat. 13–14), 'The Images of Mount Bisutūn' (cat. 118), 'The Singer Ibrāhīm and the Jinn Disguised as an Old Man' (cat. 254), the 'Stag' (cat. 263), the 'Jackal' (cat. 264) and 'The "Munsuk" People' (cat. 345).

The choice of subjects to be set against a solid red background seems entirely haphazard. In two cases the red colour fills defined interiors: the background of the cave of Mount Bisutūn and of the cellar where the singer Ibrāhīm meets the jinn. It is used as a solid background for the archangels Gabriel and Michael though not for Azrael (cat. 15), for two animals in successive illustrations, and in one painting showing a race of people of strange appearance at the end of the codex.

A solid red background is common in miniature painting of the thirteenth and fourteenth centuries. Its original impetus probably stems from wall paintings such as the Sogdian frescoes at Panjikent in the Sasanian period (fifth to early sixth century AD), where ferric oxide was used to obtain this pigment.¹⁵⁴

The solid red background begins to appear in illustrated manuscripts in the late twelfth and early thirteenth centuries

in the Jazira and in Anatolia. One of the best examples is the frontispiece of the Vienna *Kitāb al-diryāq* of c. 1200–25, where this celebrated full-page miniature is set against a red background.¹⁵⁵ However, the use of red as a background for architectural interiors is found earlier



Figure 3.35 *The Images of Mount Bisutūn*, fol. 56r, 115×167 mm.



Figure 3.36 *Steinbock (ayyil)*, fol. 107r, 58×97 mm.

in the Paris *Kitāb al-diryāq* of 1199,¹⁵⁶ and is also often encountered in the *Warqa wa Gulshā* of c. 1225–50 in Istanbul.¹⁵⁷ The same background is present in numerous paintings illustrating a late thirteenth-century *Kalīla wa Dimna* in Istanbul,¹⁵⁸ in a few illustrations from the dispersed Small *Shāhnāma* manuscripts possibly copied in Baghdad in c. 1300,¹⁵⁹ and in the miniature copy of a *Kalīla wa Dimna* in Paris now thought to have been produced at the beginning of the fourteenth

century.¹⁶⁰ It is also present in bright vermilion red in each one of the sixty-four illustrations in another copy of the *Kalīla wa Dimna* in the British Library dated 707/1307, which can be regarded as a proto-Injuid manuscript.¹⁶¹ The Istanbul Qazvīnī (dated 722/1322) and the fragmentary Gotha Qazvīnī (probably early fourteenth century) include a number of animals set against this colourful setting, such as the Camel, Giraffe, Horse, Lion, Tiger and many others.¹⁶²

The red background was especially in fashion in the second quarter of the fourteenth century in codices produced under Injuid patronage in Shiraz between 1330 and 1352.¹⁶³ According to Simpson, 'the red and ochre-colored¹⁶⁴ backgrounds against which the figures, animals, and landscape motifs are silhouetted are often commented upon as a kind of hallmark of the school'.¹⁶⁵ The illustrations of a dispersed copy of *Kalīla wa Dimna* dated 733/1333 are particularly distinctive for this type of background.¹⁶⁶ A dispersed copy of the poetic anthology entitled *Mu'nis al-aḥrār* of 741/1341 also includes red backgrounds and provides a further example of a manuscript produced in Isfahan rather than Shiraz.¹⁶⁷

This brief discussion confirms that a solid red background was a common decorative device in thirteenth- and fourteenth-century painting. Consequently, it is not to be associated exclusively with fourteenth-century Injuid manuscripts and with the town of Shiraz.¹⁶⁸ The codices created around 1300 here discussed, including the London Qazvīnī, are demonstration that red settings for illustrations became fashionable in the Ilkhanid period before they enjoyed great success under Injuid patronage.

Gold frames

Five illustrations in the London Qazvīnī have been distinctively set within thick gold frames and there is no reason to think that they were added at a later stage. The frame is about 5 mm wide with black edges, differing therefore from the omnipresent thin red double-line



Figure 3.37 Jackal (ibn āwā), fol. 107v, 66×105 mm.



Figure 3.38 Weasel (ibn 'irs), fol. 107v, 56×100 mm.

that frames all other illustrations in the manuscript. The paintings depict the 'Gall Oak' (cat. 161), 'Pear' (cat. 173), 'Lemon' (cat. 176), 'Jackal' (cat. 264) and 'Weasel' (cat. 265).

Like in the case of the red background, the choice of these five illustrations for a gold frame seems accidental, being limited to small-size paintings, three of them illustrating trees and two wild animals. The picture of the two jackals is the only painting both set against a red background and framed in gold.

Parallels for this gold frame are found in the Edinburgh al-Bīrūnī and the New York *Bestiary*, both of which will be addressed in the following chapter, and in the Istanbul *Marzubannāma*, which can be regarded as the earliest examples of this type. In the Edinburgh al-Bīrūnī of 1307 a similar thick frame is present in sixteen of the twenty-five paintings in the manuscript.¹⁶⁹ In the New York *Bestiary* of the last decade of the thirteenth century, five illustrations were framed in the same way representing the Fox, Jackal, Boar, Horse and Hippopotamus.¹⁷⁰ All three illustrations in the *Marzubannāma* of 698/1299 show the same ornamental device.¹⁷¹ Conspicuous gold framing was uncommon in thirteenth-century painting since illustrations are mostly set against a blank background and are left unframed. Apparently, this thick gold frame had a short season, limited to the late thirteenth and early fourteenth centuries, since it already tends to become less evident in the *Jāmi' al-tawārīkh* manuscripts in Edinburgh and London, produced between 1307 and 1314.¹⁷²



Figure 3.39 Pear (kummathrā), fol. 88r, 93×76 mm; Frankincense Tree (lubān), fol. 88r, 74×70 mm.

Notes

1. See Canard 1953: 77 and Hillenbrand 1994: 9.
2. The Seljuq-of-Rum period lasts from the late eleventh to the very beginning of the fourteenth century. The Seljuqs of Rum set themselves up as rulers, independent of the central power of the Great Seljuqs settled in Iran. 702/1302 is the official date of deposition of the last Seljuq-of-Rum sultan, Kaikubād III, by the Mongols who had left the Seljuqs a controlled independence after their conquest of the area in 640–1/1243.
3. The first half of the thirteenth century is the period of greatest cultural splendour both for the Seljuqs of Rum – especially in architecture – and for the small kingdom controlled by the Zangid rulers of Mosul. The Zangids became independent from the Seljuqs of Iraq who themselves were an autonomous dynasty of the Great Seljuqs of Iran (1118–94). Badr al-Din Lu'lu' governed in Mosul first as regent for the Zangids (607–629/1210–1232) and then as an independent ruler until he submitted and became a vassal of the Mongols in 642/1244–5. He died in 657/1259.
4. Under the patronage of Badr al-Din Lu'lu', ruler of Mosul, a famous illustrated copy of Abū al-Faraj al-Isfahānī's *Kitāb al-aghānī* ('The Book of Songs') was completed between 1217 and 1219. Its illustrations are all frontispieces at the beginning of the six volumes that presently survive out of the original twenty books. Three volumes are in the Dār al-Kutub in Cairo (adab no. 579), two in the Süleymaniye Library in Istanbul (Feyzullah Efendi no. 1565 and 1566), and one in the Royal Library in Copenhagen (ms. Cod. Ar. 168). See Rice 1953 and Stern 1957 for further references. Holter (1937: 14–17) seems to have been the first scholar to pigeon-hole the small group of related illustrated manuscripts into a 'Mosul school'.
5. Otto-Dorn 1982, esp. pl. V, figs 14–16 and for further bibliography on the subject.
6. This type of throne is already present in the *Warqa wa Gulshā* of the first half of the thirteenth century (Istanbul, Topkapı Sarayı, H. 674). See Otto-Dorn 1982: fig. 18.
7. See Cammann 1963: 161.
8. The best examples are the reliefs at the grotto of Tāq-i Bustān, a Sasanian monument of the end of the sixth century AD strongly inspired by Byzantine tradition. The reliefs are described in a note under cat. 118 in the Catalogue, Part Two ('The Images at Mount Bisutūn'), where a short bibliography is also provided. The Barberini Ivory, datable c. 500 AD, is in Paris, Musée du Louvre (Talbot Rice 1936: fig. 5b). The winged figures with a garland are above the niche of Buddha no. 3 at Qizil, datable to the seventh century AD (Le Coq 1925: fig. 171).
9. Esin 1968: 104.
10. A good reproduction is in Lewis 1976: pl. 3 (Ch. 11).
11. See above, note 4. Five of the six frontispieces show winged figures above the ruler. They are published in Rice 1953: figs 17 and 19 (vol. IV in Cairo, adab no. 579; vol. XIX in Istanbul, Feyzullah no. 1565); Raby 1985: frontispiece (vol. XX in Copenhagen, ms. Cod. Ar. 168); Farès 1953: frontispiece (vol. XI in Cairo, adab no. 579); Ettinghausen 1962: 65 (vol. XVII in Istanbul, Feyzullah no. 1566).
12. Paris, Bibliothèque nationale, arabe 5847. Published in Rice 1953:

- figs 20–1. The manuscript is the most celebrated copy of al-Ḥarīrī's *Maqāmāt*, written and illustrated in 635/1237 by al-Wāsiṭī. The codex is normally associated with the town of Baghdad rather than Mosul. Its frontispieces, however, seem to have been influenced by contemporary Jaziran painting or metalwork.
13. Istanbul, Archaeological Museum Library, ms. 216. In the colophon it is stated that it was completed by al-Murtadā ibn Abī Ṭāhir ibn Aḥmad al-Kāshī on 10 Ramadan 698/19 May 1299 in the eastern district of Baghdad. The importance of this manuscript, which includes three miniature paintings at the beginning of the book, has been assessed by Simpson 1982: 107, fig. 49; the illustration is at fol. 2r of the manuscript.
 14. See Nassar 1985: 90 and note 15. In the note, Nassar also points out that '[she has] not come across any such figures on Raqqa ceramics'. The iconography, therefore, seems to have been limited to Iran and the Jazira.
 15. See for example the base of a candlestick in the Keir Collection, London. Published in Fehérvári 1976: no. 126, pl. 41b.
 16. The Paris manuscript (Bibliothèque nationale, arabe 2964) is dated 595/1199; see reproductions in Ettinghausen 1962: 84–5 and Bernus-Taylor et al. 1989: figs 153a–b, e–f. Its famous double frontispiece and other paintings are in Farès 1953. The Vienna codex is attributed to Mosul, first to second quarter of the thirteenth century (Nationalbibliothek, A.F. 10); its frontispiece is reproduced in colour in Ettinghausen 1962: 91. The most recent study, also including several illustrations, is Kerner 2010.
 17. See above, note 16.
 18. See the discussion and a bibliography on this manuscript in Chapter 5.
 19. Ettinghausen 1962: 138–9.
 20. A good parallel is offered by the almost contemporary frontispieces which illustrate a copy of 'The Epistles of the Brethren of Purity' (*Rasā'il ikhwān al-ṣafā'*). The manuscript was copied and illustrated in Baghdad in 686/1287 (Istanbul, Süleymaniye Library, Esad Efendi no. 3638). See reproductions in Ettinghausen 1962: 98–9.
 21. Wellesz 1959: 23–4, fig. 75, and Carey 2001 and 2010. The manuscript seems to be linked to the North Jazira and Southeastern Anatolia since it shows some similarities with a copy of al-Bīrūnī's *Kitāb al-taḥfīm fī sinā'āt al-tanjīm* (British Library, Add. 7697) written in Konya in 685/1286 and sold in Sivas in 732/1332. Carey, however, has recently suggested the possibility that it was produced in Maragha around 1260–80 (2010: 69). For a bibliography on al-Ṣūfī's text see note 5 of the Catalogue, Part Two.
 22. Published in Carey 2010: fig. 4 and available in the Warburg Institute Iconographic Database, at <http://warburg.sas.ac.uk/vpc/VPC_search/record.php?record=5587> (last accessed 6 January 2015).
 23. Wellesz 1959: figs 63–4 and 74.
 24. To mention only some of these figures, see the constellations of Bootes, Heracles, Auriga, Andromeda and Perseus (Wellesz 1959: figs 4–5, 46, 49, 52, 54–5, 61 and 75; Carey 2010: figs 2–3).
 25. Some of them show the same Seljuq-inspired figures, such as Nāṣir al-Dīn al-Ṭūsī's autographed work dated 1249/50 AD (Istanbul, Aya Sofya 2595) and an undated manuscript in Paris (Bibliothèque nationale, arabe 2489), in addition to the copy in the British Library, Or. 5323.

- See Wellesz 1959: 21–2, figs 46–56. The earliest of them, a recently published codex in the Reza Abbasi Museum in Tehran (M 570), is instead clearly indebted to early thirteenth-century Arab painting (Contadini 2006).
26. For the winged figures from Konya, see above, note 10. The angels above the left *mihrab* of the caravanserai of Susuz are published in Ünal 1982: fig. 193 and pl. 56.
 27. Nallino (1899–1907) limits the presence of ‘Uṭārid in the literature as the *kātib* to Spain and North Africa, and adds that it is not to be found in Arabic texts or dictionaries compiled east of the Nile (see Hartner, ‘Uṭārid’, *EI1*). This is certainly not true as far as its iconography is concerned, and our discussion on the literary sources will also contradict Nallino’s statement.
 28. Fol. 14r. The illustration is unpublished.
 29. The mirror in the Museum of Islamic Art, Cairo, is dated 548/1153; the medallion on the lid of a pen box in Bologna, Museo Civico Medievale, no. 2119, is datable to the thirteenth century; the late thirteenth- or early fourteenth-century Mamluk bowl is in Florence, Museo Nazionale del Bargello, no. 364 c. The three objects are reproduced in Baer 1983: figs 202 and 210–11; Baer 1983: 248–58 devotes a few pages to the planets and the Zodiac in the decoration of metalwork: for ‘Uṭārid as the *kātib*, see especially 249.
 30. The manuscript has not yet been properly studied and published. A date in the codex corresponding to the year 1300 is misleading since at least the illustrations are later. A few paintings are signed by a certain Qunbur ‘Alī Shirāzī who claims he works in Cairo. It has recently been attributed to fifteenth-century Egypt in Vesel, Tourkin and Porter 2009: 154, no. 99.
 31. Fols 12v, 16r, 17v, 24v and 26v (Keir Collection); 25v and 33v (Sarajevo) (Carboni 1987: respectively figs 35, 15, col. pl. IX B, 24, 26, 25 and 30).
 32. Fols 5v, 7v, 11v, 17v, 21v and 49r (Carboni 1988: 3, 4, 6, 9, 11 and 54).
 33. On al-Bīrūnī see Chapter 4, note 2.
 34. Al-Bīrūnī 1934: 253, nos 433–4, Arabic text with translation in English. The text is a facsimile of ms. BL Add. 8349, undated but in the possession of Awḥad As‘ad ibn Miḥrlār al-Muṣṭawfī in 839/1436. The text on Mercury is at fol. 118v.
 35. Probably the author himself edited both the Persian and the Arabic versions. See Rieu 1879–83, II: 452.
 36. Al-Bīrūnī 1934: xii gives a short list of manuscripts examined for the edition, among which is a codex in Berlin, Staatsbibliothek, no. 5666, copied in 635/1237–8 in ‘*magrebinisch Schrift*’ (Ahlwardt 1887–99, V: 150), and the ms. Bodl. Marsh 572, copied in 681/1282 by a Copt known as Ibn al-‘Ushshā’ in Cairo.
 37. Ibn Ghulām is also the copyist of an account of al-Rāzī’s and al-Bīrūnī’s works, presently in Leiden, ms. Golius 133, dated 692/1293.
 38. The text on the picture of Mercury is at fol. 128r.
 39. Brockelmann 1943, I: 243, no. 4 and Ritter and Plessner 1962: introd.
 40. Pingree 1981: 27–8; Pingree 1986: introd. and Latin edition; Perrone Compagni 1975: 245; Kahane and Pietrangeli 1981.
 41. Sezgin 1971, 4: 294–8.
 42. The term *fitna* is applied to any period of disturbances or civil wars

- inspired by religious schools or sects that broke away from the majority of believers. See Gardet, 'Fitna', *El2*.
43. Holmyard 1923.
 44. Pingree 1980: 2–3 and 15.
 45. *Qaḍīb*: according to Lane 1863–93 and to Ibn Manzur 1955–6, 'a rod, stick, wand, branch, twig, stalk, a bow made of a rod, a slender arrow or sword'.
 46. Translated from Ritter 1933: 109, and compared with ms. BL Or. 9577, fol. 36v, copied in 1190/1776.
 47. Pingree 1986: 67.
 48. This 'Uṭārid is obviously not the planet Mercury, but the name of an author transmitted by literary sources. The lapidary is included in his work entitled *Sirr al-asrār*. See Sezgin 1967–2000, VII: 137 and Ruska 1919: 21–6 and 33.
 49. Ritter and Plessner 1962: lix and 114–19, esp. 116, and Kahane and Pietrangeli 1966: 575–7.
 50. Jagiellonian University Library, 793 (DD III 36). It is one of the manuscripts examined by Pingree 1986: xvii for his Latin edition of the text. See Ameisenowa 1958, cod. Rps 793, figs 240–1; she considers the miscellaneous codex on medicine and astrology, where the fragment from the *Picatrix* is included at pp. 378–93, as having been produced in Austria or Czechoslovakia.
 51. Pingree 1986: pl. 8.
 52. Conybeare 1913: 320–8, no. 136. A leaf, probably added after the manuscript was bought by the British Museum in 1903, states: 'A work on Astronomy, Astrology, and Sorcery, written in the Armenian language by Astwachatoor a bookseller of Van in Kurdistan, and son of Ter (Reverend) Jovasaph. The work was the result of thirty years labor and was completed according to the Armenian or Ancient mode of calculation in the year 1160, corresponding with A.D. 1712. It was commenced by the author in his native town of Van, and subsequent portions were written while sojourning in the following places; viz. Erzroum, Tokat, Marsiwan, Beybazar, Smyrna, Constantinople, and was finally finished in the Island of Cyprus.' Conybeare 1913: 321 states that Ter Hovasap, son of Astuadzatur (the names are inverted), is the commissioner (and not the author) of the book. The manuscript seems to be unpublished, and is only briefly mentioned in Russell 1989: 235 and 239. Thanks to Dr V. Nersessian of the British Library for help in this matter.
 53. Conybeare 1913: 321. The treatise is at fols 30–3.
 54. Al-Bīrūnī 1934: 253, nos 433–4.
 55. In this treatise, 'Uṭārid's talisman is associated with a cock, while Jupiter is said to ride an ostrich; the peacock, however, never appears. See Carboni 1988–9: note 13. The following manuscripts in the John Rylands Library in Manchester can be added to the British Library codices mentioned in the note: Ryl Pers 2, Ryl Pers 3; see Robinson 1980: nos 988–93 and 1318–24.
 56. The serpent was punished by God but the peacock, which was the intermediary between the couple and the snake, managed to escape (Empson 1928: 182–3).
 57. An extensive literature on the peacock exists in the Islamic tradition. A study on its representation and significance in Islamic art, including a good bibliography, is in Daneshvari 1986: 46–64.

58. Lowry and Nemazee 1988: 129, no. 33, and Farhad 2009: 98–9, no. 13.
59. See below, note 79.
60. Daneshvari 1986: 60–1. See reproductions in Stronach and Cuyler Young 1966: pl. XV a–e.
61. Grube 1972: 54, no. 25, pl. X.B. The single leaf is said to come from an unidentified Arabic text.
62. Hajji Khalifa 1850, V: 47, no. 9879 gives the full name as Abū al-Qāsim Muḥammad ibn Aḥmad al-ʿIrāqī al-Sīmāwī; Brockelmann 1943–9, I: 654–5 gives the full title of the work as *Kitāb al-aqālīm al-sabʿa fī al-ʿilm al-mawṣūm bi-l-ṣanʿa* ('The Book of the Seven Climates Upon the Science Called the Art [of Alchemy]') and states that its author lived in the sixth century AH or twelfth century AD. However, this date was revised by Holmyard 1925: 417 who demonstrated that the author died after the mid-thirteenth century. See also Sezgin 1967–2000, IV: 46. The manuscript Add. 25724 of the British Library is in textual disorder; a comparison with its equivalent in Gotha, according to its description in Pertsch 1878: 1–2, no. 1261, and Siggel 1950: 23–30, no. 1261, confirms that the two manuscripts are identical, that the London codex has a wrong pagination, and that six of its folios are missing. Holmyard 1925: 403 mentions another copy of this text in Cairo, Sultaniyya Library, v. 276, although he does not say whether or not it is illustrated.
63. See above, note 56.
64. Saxl 1957: 2–3, pl. Ia. The figure carved on a steatite bowl shows a Sumerian deity holding two snakes in his outstretched arms. Another example from c. 2500 BC is on a goblet belonging to King Goudea, where two interlaced snakes are shown in relief; published in Farès 1953: fig. 2 (reproduced from Zervos 1935: pl. 200).
65. Panofsky and Saxl 1932–3: figs 37 and 41. The first manuscript is a copy of the *Encyclopaedia* of Hrabanus Maurus, Monte Cassino, about 1023; the second is the same work in the Vatican Library, Cod. Vat. Pal. Lat. 291, about 1430.
66. An extensive literature on the Yazidis exists, which can be found in the bibliography of one of the most recent works on the subject, Guest 1987, in addition to the most recent, Fuccaro 1999. This sect enjoyed great interest among scholars in the years between the 1850s and the 1920s, a period when the secrets of these people began to be known. A scientific approach to a better understanding of their complex history began only in the 1950s: see Field 1951: 42–93.
67. Tritton, 'Ādī b. Musāfir', *El2*.
68. Guest 1987: 18.
69. The chroniclers say that a hundred of them were hanged from the gates of Mosul (see Lescot 1938: 102 and al-ʿAzzawī 1935: 46). In 655/1257–8 ʿIzz al-Dīn Kaykāʾūs II, the son and one of the successors of the sultan of the Seljuqs of Rum, Kaykhusraw II (reigned 634/1237 to his death in 643/1245–6), tried to convince the new amir of the ʿĀdawīs, Sharaf al-Dīn, to join him, but the amir refused and was killed in battle by the Mongols (see Cahen, 'Kaykāʾūs', *El2*). Under Mongol rule, it seems that the leaders of the order preferred to move under the protection of the Mamluks and they emigrated to Syria and Egypt. One of their spiritual leaders, Zayn al-Dīn Yūsuf, founded a *zāwiyya* in Cairo, where he died in 797/1297 (see Ibrahim 1978).
70. An earlier source, al-Shahrastānī, in a work dated 1127–8 states that a link between the Yazidis and the Sabians had already been established

at that time. However, the author claims that the Yazidis were influenced by the Sabians mentioned in the Qur'an and not by those active at Harran or Wasit: 'Les Yazidiyya, [. . .] abandonnerait la Loi de l'Elu [de Dieu] Muhammad, et pratiquerait la religion des Sabéens mentionnée dans le Coran, lequel différerait des Sabéens existant à Harran ou Wasit' (Gimaret and Monnot 1986: 411). For the problems on the identification of the Sabians mentioned in the Qur'an, see the bibliography in the following note.

71. The bibliography on the Sabians is large, although the standard work is still Chwolson 1856, where the Arabic sources are fully investigated. See among others Siouffi 1880, Pedersen 1922, Marquet 1966, Dodge 1967, Buck 1984, Tardieu 1986 and Pingree 2003.
72. Mehren 1964: 45 ff., ch. 1, 10.
73. Ebied and Young 1972: 494. See also Rice 1952 and Fehérvári, 'Harrān', *El2*.
74. Saxl 1912: 159–62 and Hartner 1965: 438.
75. The second Umayyad caliph, Yazīd ibn Mu'āwiya; he was born in 642 and was caliph from 680 until his death in 683. See Lammens, 'Yazīd b. Mu'āwiya', *El1*. The *risāla* or letter written by Ibn Taymiyya is found in Ibn Taymiyya, *al-Majma'a al-kubrā*, I: 262–317. This last reference is quoted by Lescot 1938: 43. See also Fuccaro 1999: 12–14.
76. *Kitāb al-radd 'alā al-rāfida wa al-yazidiyya al-mukhālifin li-l-millat al-islāmiyya*, composed in 725/1325. The work is unpublished but briefly discussed in 'Azzawi 1935: 81–3. See also Guidi 1938: 560–1 and Lescot 1938: 36.
77. Guest 1987: 25.
78. Guest 1987: 41. See also Açıkyıldız 2009.
79. This is the reason why the sect was known by the name of Devil Worshipers: they adored the symbol of Iblis, Lucifer, who is never redeemed in the religions of the Book.
80. As for the more recent history of the Yazidis, we are informed by al-Maqrīzī in the fifteenth century (*Kitāb al-sulūk*) that their temple in the Lalish valley was destroyed in 817–18/1415. However, they managed to survive and from then on more precise information about the sect is available. Presently there seem to be about 150,000 Yazidis, two thirds of whom still live in Northern Iraq (Mosul and Sinjar areas), 40,000 in the former Soviet Union (in the Caucasus, in particular in Armenia, where they emigrated as early as the fifteenth century), around 10,000 in Turkey (close to the Syrian-Iraqi border), and some 5,000 in Northern Syria (see Guest 1987: 197).
81. Bell 1924: 274. In the early part of the twentieth century the control of the *sanjak* became central to the ability to manage the distribution of the alms, one of the main sources of funding for the Yazidi community in the Sinjar (Fuccaro 1999: 144). The famous bronze peacock bought by the British Museum in Delhi and placed on view in July 1912 was then identified as Persian and withdrawn from display. For a reproduction, see Empson 1928: frontispiece.
82. Empson 1928: 146. Hasan al-Baṣrī (21–110/642–728) was a preacher and a theologian in Basra. His fame rests on his sermons and on the sincerity of his religious personality. The Mu'tazilites sometimes claim that their origins are connected with him. His name appears in the *silsilas* of many Sufi orders as a link in the chain

- of transmission of their knowledge. See Ritter, 'Ḥasan al-Baṣrī', *El*2.
83. Empson 1928: 122.
 84. Stevens 1923: 182–3. A description is also in Bell 1924: 275–6, fig. 178.
 85. Field 1951: 86.
 86. Corkill 1939: 48.
 87. Guest 1987: 131.
 88. Giamil 1900: 20 and Nau 1918: 89.
 89. See the description in the Catalogue (cat. 335).
 90. See the note in the text of cat. 92 in the Catalogue.
 91. Published in Hartner 1938: fig. 22. The manuscript is a treatise on magic and talismanic science entitled *Kitāb daqā'iq al-ḥaqā'iq*. It was composed at Aqsaray in 670/1272 or 671/1273 by Nāṣir al-Dīn Muḥammad ibn Ibrāhīm 'Abdallāh al-Rummāl al-Mu'azzim al-Sa'ātī al-Ḥaykalī, and dedicated to Ghiyāth al-Dīn Kaykhusraw III. It includes talismanic treatises and descriptions of angels, and is illustrated with miniatures related to the Byzantine tradition of manuscript illustration. See Blochet 1926: 72–4; an article by Marianne Barrucand studies this manuscript in more detail (Barrucand 1991). See also note 32 in the text of cat. 15 in the Catalogue, Part Two. In a personal communication in August 1991, Professor Michael Rogers expressed his doubts about the originality of the majority of the illustrations found in the manuscript; he believed that they were added later, probably in the Ottoman period.
 92. Bachmann 1913: pl. 37 and Sakisian 1940: fig. 32.
 93. Published respectively in Curatola 1989: fig. 37; Preusser 1911: pl. 17 (above); Curatola 1989: fig. 38; Preusser 1911: pls 11, 17 (below) and 16. Other Anatolian examples are at Ani (Sakisian 1940: fig. 33) and at Kubadabad, Çankiri and Burdur (Öney 1969: figs 4, 8 and 15).
 94. Azarpay 1978: 366, fig. 5.
 95. For the manuscript, see above, note 16. Farès 1953: 29–32, pl. 1.
 96. Azarpay 1978. See the discussion below for details on the astronomical meaning.
 97. Dragon, snake and serpent are always confused in the literature on the subject. This is because they must often be identified as one and the same mythical animal, the dragon being a snake provided with wings, horns, tufts of hair, clawed legs and other attributes. On the identification of dragon/snake, see Curatola 1989: 10–1. Throughout the text, the words 'dragon' and 'snake' will be used with the same meaning.
 98. Hartner 1938.
 99. The origin is to be found in Hindu mythology, in the story of the demon Rahu: 'It was Rahu who, previous to the churning of the milk ocean, commanded the demons, then allied with the celestial gods in the struggle against the world serpent, Ananta. After the victorious event, he succeeded in an unguarded moment in sipping the amrita drink; but the sun and the moon, who had watched his crime, denounced him to the gods, and instantly Vishnu, approaching in haste, severed his head from his body. Nevertheless, the amrita had already produced its effect and rendered him immortal like the celestials. Consequently, Rahu's head as well as his body, Ketu, intransigent enemies of the two great luminaries, ever since tries to devour the sun and the moon whenever the occasion serves, and thus causes solar and lunar eclipses' (Hartner 1938: 131).

100. See also Hartner, 'al-Djawzahar', *El2*.
101. In order, Mars, Sun, Venus, Mercury, Moon, Saturn and Jupiter.
102. Preusser 1911: pl. 40.
103. Hartner 1938: fig. 1.
104. On this manuscript, see Chapter 5, esp. note 4.
105. Badiee 1984: 99, figs 8–13. See also Hartner 1938: figs 16–18 for reproductions of illustrations showing the same subjects in later replicas of the Sarre Qazvīnī, presently found in St Petersburg, Academy of Sciences, and in Boston, Museum of Fine Arts.
106. Good examples are a gravestone from Ahlat (twelfth to thirteenth century), a relief on the Cifte Minareli at Erzurum (thirteenth century), and the central figure of the Chinese zodiac relief at the entrance of the Gök Medrese at Sivas (1271–2). They are all published in Curatola 1989: figs 36, 45 and 49 and Öney 1969: figs 11, 26 and 32; see also Diez 1949: fig. 1.
107. See above, note 16.
108. See the partial translation of the story in the Catalogue (cat. 62–3).
109. The stamp is published by Faruq Sa'd in his introduction to al-Qazvīnī 1977: 19. It is a 10 fils stamp issued by the 'Mahra State, South Arabia' (*al-dawla al-mahriyya al-janab al-'arab*). It reproduces the image of the flying man from Isfahan from the Munich Qazvīnī, fol. 65v. For a reproduction of the painting, see Ettinghausen 1962: 139. Although the stamp bears no date, it was issued after the British left the area in 1967, when small regions such as Mahra made attempts at independence until the former People's Republic of Southern Yemen incorporated them. Since then and until the unification with North Yemen in 1989, Mahra has been the sixth governorate of the Republic of Southern Yemen. The stamp probably had no postal validity and was issued by a resistance movement against Aden. Thanks to Dr 'Abdullah 'Ali Yahya al-Udhari and to Dr Geoffrey King for the information.
110. For just one of the late examples, see the nineteenth-century Qajar manuscript Or. 4383 in the British Library, dated 1250/1834, fol. 47v. The illustration is unpublished.
111. A variation of the same theme is provided by a painting in the Persian manuscript Or. 12220 of the British Library, fol. 72v. It shows the man on the trunk of a tree about to grab the bird's legs. The illustration is published in Meredith-Owens 1960–1: pl. XXX.
112. See Carboni 1988–9: pl. VII.C and Berlekamp 2011: 66–7, figs 31–2.
113. See Curatola 1989: 29 and note 9, who quotes H. P. Schmidt, 'The Senmurv. Of Birds and Dogs and Bats', *Persica*, 9 (1980): 1–85, and J. Zykan, 'Zur Geistwelt der Asiatischen Kunst', *Artibus Asiae*, 6 (1936): 5–16; 7 (1937): 178–90. One of the many theories is that the pearl represents the red sun that cooled down over time and became a silvery moon-like pearl; the chasing of the sun by the dragon is eerily reminiscent of the Hindu mythological legend of Rahu and Ketu who tried to devour the sun and the moon and gave birth to the lunar node in Islamic astrology (see above, note 99).
114. Paris, Bibliothèque nationale, MSS or. Suppl. Pers. 205. See the right-hand side double frontispiece reproduced in Komaroff and Carboni 2002: fig. 201 and p. 244, no. 1 with the relevant bibliography.
115. Published in colour in *Ch'ang-sha* 1972: pl. 1.
116. Badiee 1978: pl. 53 and Badiee 1978a: fig. 16. Badiee 1984: 99–100 considers the representation of the double-headed eagle as one of the

strongest points to demonstrate a South Anatolian provenance for the Sarre Qazvīnī.

117. An illustration in two later copies of the late fourteenth-century *Kitāb al-bulhān* (Bodleian Library, Oxford, Or. 133), now lost from the original manuscript, depicts the story of 'The Laughing Snake and the Mirror', which seems to refer to a number of myths also related to al-Qazvīnī's Šannāja. See Carboni 1988a: 108–10, pl. 8.
118. Badiée 1978: pl. 82 and Berlekamp 2011: fig. 52.
119. Berlekamp 2011: fig. 56.
120. Atıl 1975: no. 70.
121. A survey of Norgren and Davis 1969 and of the *Cambridge Shahnama Project* – see <<http://shahnama.caret.cam.ac.uk/new/jnama/page/>> (last accessed 7 January 2015) – confirms that no illustrated copy of this text is known from the thirteenth century.
122. A late Fatimid painting on paper illustrating the demon Jazrafil riding an elephant (c. 270×190 mm) shows evident signs of having been folded into sixteen parts, fitting in a talismanic box about 70×50 mm. It is in the British Museum, Department of Prints and Drawings, inv. no. 1934-12-8-01. Published in Gray 1935: pl. XXXVII and attributed to c. 1200.
123. Four illustrations at the beginning of the manuscript arabe 2583 of the Bibliothèque nationale, Paris, show three kings of the jinns and Iblīs (fols 2–3). Fol. 3 shows signs of folds: it has been used as a talisman. The manuscript bears a colophon with the date 700/1300 (fol. 37v); however, the four illustrations have certainly been bound later and may be of later date. In the same manuscript, the thirty-six illustrations of the signs of the Zodiac and their Decans show a definite Jalayrid influence of the end of the fourteenth century. Three out of the four paintings have been published by Blochet 1929: pl. XXXII and Blochet 1926: pl. XX a–b. In the late fourteenth-century *Kitāb al-bulhān* in the Bodleian Library, Oxford (ms. Or. 133), there are ten paintings illustrating the kings of the jinns and those responsible for diseases (fols 28r, 28v, 29v, 30r, 30v, 31r, 31v, 32r, 32v and 33r). The manuscript is a miscellany of different treatises; however, its paintings are of late Jalayrid date. The ten illustrations are published in black and white in Carboni 1988: pls 16–17 and 19–26, and three of them are reproduced in colour in Carboni 2013: 26 and 30. The entire manuscript is available online through the Oxford Digital Library of Oxford University at <<http://www2.odl.ox.ac.uk/gsd/cgi-bin/library?e=d-000-00---ooriento2--00-0-0-oprompt-10---4-----o-11--1-en-50---20-about---00001-001-1-1isoZz-8859Zz-1-o&a=d&c=oriento2&cl=CL1.8&d=oriento2-aab>> (last accessed 7 January 2015).
124. Ettinghausen 1950: 47–52: 'The tamed, even domesticated nature of the animal is exemplified in a miniature in the Vever collection in which the rhinoceros is shown not only standing calmly with all the other creatures, but with strings of bells around its neck and a saddle-cloth on its back [note 6: G. Marteau, H. Vever, *Miniatures persanes tirées des collections de mm. Henry d'Allemagne, Claude Anet [e.a.] [...]* et exposées au Musée des arts décoratifs juin-octobre 1912, Paris, 1913, vol. 2, pl. 90].'
125. Hirth and Rockhill 1911: 117–18: 'The emperor T'ai-tsung asked him how rhinoceroses and elephants were captured. He replied, "to capture elephants, we use decoy elephants to get so near them that we can

- catch them with a big lasso [. . .] The young [rhinoceroses] are not shot as they can be caught.”
126. ‘Atṭār 1988: 113, lines 2272–5: ‘A jewelled gold collar sparkled at its throat, / Its back was covered by a satin coat – / Gold anklets clasped its paws; its leash was made / Of silk threads twisted in a glistening braid.’
 127. For more details about size, shapes and types of bricks in the Ilkhanid period, see Wilber 1955: 47–51.
 128. Published respectively in Ettinghausen and Grabar 1987: pls 179–80; Hill and Grabar 1964: pls 219–20; Pope and Ackermann 1938–9, IV: pl. 279; Wilber 1955: pl. 5; and Hill and Grabar 1964: pl. 223. The Gunbadh-i Surkh also shows more complex brickwork patterns: horizontal rows are found, especially on the tympanum.
 129. Published in DeGeorge 1983: 172–3.
 130. Respectively in Bakirer 1981: pl. 52, cat. 13.2, and Hill and Grabar 1964: pl. 374.
 131. Bakirer 1981: pls 53 and 111, cat. 23.1 and 4.
 132. This appears to be the best word to define this type of arch, which can be described as a round-profile arch which is ‘broken’ on its shoulder by two segments projecting outwards; a horizontal line joins the segment at the top, thus creating a triangular space at the top of the arch. Harris 1975: s.v. ‘broken arch’ writes: ‘A form of segmental arch in which the centre of the arch is omitted and is replaced by a decorative feature; usually applied to a wall above the entablature over a door or a window.’ Wilber 1955: 69 names it ‘segmental arch’.
 133. Ünal 1982: pl. 112.
 134. Preusser 1911: pl. 4 (right).
 135. Hill and Grabar 1964: pl. 450.
 136. Wilber 1955: pl. 12.
 137. The patron of the building was most likely the Ilkhanid sultan Ghāzān Khān. See Pope and Ackermann 1964, III: 1084 and VIII: pl. 395. The profile of this arch is also in the Munich Qazvīnī of 1280 in the illustration of the ‘Images of Mount Bisutūn’ (fol. 83r). Both segmented and broken-headed arches are also present in the frontispieces of the *Rasā’il ikhwān al-ṣafā’*, copied in Baghdad in 686/1287 (Istanbul, Süleymaniye Mosque Library, Esad Efendi 3638, fols 3v–4r), published by Ettinghausen 1962: 98–9.
 138. Published in Preusser 1911: pl. 10.
 139. See for example the mausoleum at Gevaş, dated 1332, and the tomb of Erzen Hatun of 1396–7 at Ahlat. Published respectively in Bachmann 1913: pl. 52 and Hill and Grabar 1964: pl. 392.
 140. Published respectively in Hill and Grabar 1964: pl. 480 and Ünal 1982: pl. 84. The motif of the roundels above arches is already present as early as 295/907 above the squinches of the interior of the mausoleum of the Samanid ruler Ismā‘īl, in Bukhara (Pope and Ackermann 1938–9, IV: pl. 264C).
 141. Grabar 1984: 122.
 142. Grabar 1984: 122.
 143. About thirty pages of this manuscript, the greater part of which is preserved in Istanbul (Süleymaniye Mosque Library, Aya Sofia no. 3703), have been dispersed and are presently found in various collections. Two illustrations showing the profile of the broken arch from the dispersed pages are in Buchtal 1942: figs 10 and 13 and Ettinghausen

- 1962: 87. An illustration from the Istanbul codex (fol. 2r) is in Grube 1959: fig. 1.
144. See for example the Dioscorides in the Bodleian Library, Oxford, Or. 138, fol. 2v. The manuscript is dated 637/1239. See Grube 1959: fig. 9.
145. It is the so-called Schefer Ḥarīrī in the Bibliothèque nationale, ms. 5847. See for example Ettinghausen 1962: 121 (fol. 122v) and Hillenbrand 2010.
146. Meinecke 1976: pls 2.1 and 49.1, cat. 4 and 109. The former also appears in Hill and Grabar 1964: pl. 463.
147. These are only two examples out of a large number. They have been selected to represent a north-western and a south-eastern geographical limit to the diffusion of minarets decorated with glazed brickwork. They are respectively in Kuran 1969, I: 54–5, pl. 104 and Brandenburg and Brüsehoff 1980: pl. 46.
148. Meinecke 1976: pl. 6.1, cat. 41 and Hill and Grabar 1964: pls 540–1.
149. The example in Kashan is dated 667–70/1268–71 and was originally set on the sarcophagus of Ḥabīb ibn Mūsā: here, the hexagonal lustre tiles alternate with six-pointed star tiles. The mosque of ‘Alī at Quhrud is dated 700–7/1300–7: in this case the hexagonal tiles are in turquoise glaze and are alternated with lustre six-pointed star tiles. Both examples are in Watson 1985: 114–15.
150. This jar was found at Rayy and its height is 68.5 cm. It was exhibited at the Hayward Gallery (Jones and Michell 1976: cat. 362) as belonging to the Olga Ella Monheim Collection in Germany. See also Watson 1985: pl. 95.
151. Kurz 1972: 302–3, fig. 3a, b.
152. For the manuscript, see above, notes 4 and 11. In the frontispiece of vol. XVII in the Süleymaniye Mosque Library in Istanbul (Feyzullah no. 1566), Badr al-Din Lu’lu’ sits on a gold-painted folding chair which can be interpreted as a portable throne.
153. On this partially dispersed manuscript, see above, note 143. Kurz 1972: figs 4–5 publishes a leaf in the Museum of Fine Arts, Kiev, and one in The Metropolitan Museum of Art, New York (inv. 57.51.210). Both paintings show folding chairs with curved legs and metal bosses. For other miniatures from this codex showing the same detail, see Buchtal 1942: figs 10, 11, 13, 15 and 31.
154. A good example is found in the northern chapel of Temple II, one of the earliest buildings at Panjikent. A reproduction of a four-armed goddess and donors set against a red background is in Azarpay 1981: pl. 27.
155. Vienna, Nationalbibliothek, A.F. 10. The codex is generally attributed to Mosul. The frontispiece is reproduced in Ettinghausen 1962: 91 and Contadini 1988–9: pl. IIID; see also Brend 1991: fig. 76 and above, note 16. A similar painting, though possibly a later copy of a thirteenth-century frontispiece, was once in the Kraus Collection (Grube 1972: no. 10, pl. IV).
156. For the manuscript, see above, notes 16 and 95. An example of red background to fill the interior of a domed building is published in Ettinghausen 1962: 85.
157. Istanbul, Topkapı Sarayı Library, H. 841. This manuscript has no date nor place of production. It has been attributed to the Jazira although the city of Konya in Central Anatolia has also been suggested. A reproduction of an illustration with a red background is in Rogers

- 1986: no. 21, representing 'The battle of the Banū Shayba and the Banū Dabya', fol. 12r. In the illustration of 'Gulshā held captive by Ibn Rabi' published by Brend (1991: fig. 52), solid red paint is also the background of the symbolic entrance door to a tent. A thorough study of the manuscript is Melikian-Chirvani 1970, where two colour plates with four miniatures are published in addition to many black and white photographs.
158. Istanbul, Topkapı Sarayı Library, H. 363. The manuscript is attributed to Mesopotamia or possibly Anatolia. Reproductions of its double frontispiece and six illustrations, all set against a vivid red background, are published in Rogers 1986: nos 25–31; four more reproductions are in İpşiroğlu 1971: 7–14; see also Waley and Titley 1975: fig. 14.
159. Simpson 1979. Four small-size dispersed copies of the *Shāhnāma* show similar stylistic features. Scholars have attributed these codices to many different places from Baghdad to India. Simpson's monographic work and her suggestion of Baghdad around 1300, though tentative, remains the best attempt to locate their place of production. The occurrence of a red background in these Small *Shāhnāma* copies is rare. One example is in a page from the so-called Schulz *Shāhnāma*, now in The Metropolitan Museum of Art (1974.290.1), which depicts Rustam fighting a crocodile (Dimand 1950: pl. IV and Grube 1962: no. 20).
160. Paris, Bibliothèque nationale, suppl. Pers. 1965. On the manuscript, see Stchoukine 1936: 92–3, no. XVIII, Gray 1940: 134, no. 1 and Grube 1978: 17, note 2. Other illustrations are in Blochet 1929: pl. II and Pope and Ackermann 1964, IX: pls 816A and 817. Eleven out of the nineteen paintings in the manuscript have a red background.
161. British Library, Or. 13506. For a general analysis of the manuscript, a few reproductions and a list of its illustrations see Waley and Titley 1975 and Titley 1983: 36–7. As noticed by Berlekamp (2010: 78, note 25), quoting Wright 2006: 259, note 37, ms. 5, the attribution of this manuscript to Shiraz is a 'plausible hypothesis'. My own 'proto-Injuīd' definition, originally postulated in my dissertation (Carboni 1992: 511), was a different way to express the same concept.
162. These manuscripts are both discussed in Chapter 5. Thanks to Karin Rührdanz for providing colour photographs of some of the illustrations of the Gotha Qazvīnī. See Berlekamp 2010: figs 3–6 and 10–11 and Berlekamp 2011: fig. 15.
163. Shiraz is accepted by scholars as the centre of production of this small group of distinguished manuscripts on the evidence of the dedication of one of them to Qawām al-Dīn Hasan, the first minister of Abū Ishāq, governor of Shiraz 1335–53. Grube (1978: 15–16) lists seven codices as belonging to this style: four copies of the *Shāhnāma*; one dispersed *Kalīla wa Dimna*; a copy of the *Kitāb-i samak ayyār*; and a dispersed manuscript of *Horoscopes*; see also Sims 2006. A comprehensive study of book production in fourteenth- and fifteenth-century Shiraz is Wright 2012, with special reference to illustrations in Chapter 3 (pp. 153–230). A good reproduction of a folio with red background from one of the copies of the *Shāhnāma* (Istanbul, Topkapı Sarayı Library, H. 1479), dated 731/1330, is in Rogers 1986: no. 32; see also Wright 2012: pl. 112.
164. The ochre background is generally understood to be a cheap substitute for the gold of Byzantine manuscripts.

165. Simpson 1979: 11. See also Berlekamp 2010: 81 and note 33 where she emphasises that red, ochre and orange backgrounds are to be associated with scenes set on dry land in Injuid paintings, a pattern that may have been established following earlier Qazvīnī manuscripts produced in the area such as the Istanbul codex.
166. Gray 1940: 135, no. 4, Binyon, Wilkinson and Gray 1933: 41, no. 16, pl. XI, Grube 1972: pl. XII and Falk 1985: 53, cat. 19.
167. The author of this poetic compilation was Muḥammad ibn Badr al-Jāarmi. For a study of this manuscript see Swietochowski and Carboni 1994: 8–66; see also Gray 1961: 60–1.
168. See for example Gray 1961: 58: 'The existence of the tradition is now seen to be well-founded, but it must be admitted that there is a long gap in the tradition which is not at present covered in any way.'
169. Fols 10v, 48v, 92r, 92v, 93v, 94r, 95r, 100r, 101r, 103r, 103v, 104v, 140v, 157v, 161r and 162r.
170. Respectively fols 22r, 23r, 25r, 28r and 28v. A reproduction of the illustration of the horse is in Gray 1961: 21.
171. Istanbul, Archaeology Museum Library, no. 216, fols 2r, 5r and 7r. See Simpson 1979: 273ff., pls 109–11 and Simpson 1982.
172. Edinburgh, University Library, ms. 20; London, Khalili Collection, formerly in the Royal Asiatic Society. See Blair 1995 for a thorough study of the manuscript.

CHAPTER FOUR

The London Qazvīnī in Relation to the Edinburgh al-Bīrūnī and the New York *Bestiary*

THE ILLUSTRATIONS OF the London Qazvīnī are related to those in two manuscripts of the end of the thirteenth century and the beginning of the fourteenth, respectively the so-called New York *Bestiary* and the Edinburgh al-Bīrūnī. In addition, a single illustration in one of the miscellaneous Diez Albums in Berlin shows strong links with both the London Qazvīnī and the Edinburgh al-Bīrūnī. The present chapter includes a discussion of the Edinburgh and the New York manuscripts as compared with the London Qazvīnī with the aim of establishing a similar dating of around 1300 for the latter manuscript.

The Edinburgh al-Bīrūnī

A small but distinguished number of illustrations in the London Qazvīnī are closely related to a dated manuscript in the University Library in Edinburgh (ms. 161). It is an illustrated copy of al-Bīrūnī's *Kitāb al-āthār al-bāqīya 'an al-qurūn al-khāliya* (commonly known after Sachau's translation as 'The Chronology of Ancient Nations'),¹ a treatise on calendrical systems by this famous astronomer, erudite writer and polymath.² The Edinburgh al-Bīrūnī manuscript is well-known, many of its illustrations have been published³ and it has been the subject of detailed articles by Priscilla Soucek and Robert Hillenbrand.⁴ This copy is also important because its colophon firmly dates it to 707/1307, although no indication of its place of production is offered. The Ilkhanid capital, Tabriz, has been repeatedly suggested as the most likely place of production.⁵ Soucek's alternative suggestion of Maragha, together with Tabriz the most distinguished intellectual and artistic centre of Ilkhanid Iran, is sensible and well supported by a detailed analysis of the complex and very selective choice of the manuscript's illustrative cycle. In addition, the manuscript shows little stylistic relation to the paintings in the Rashīd al-Dīn codices in London and Edinburgh which were produced in the Rab'ī Rashīdī quarter in Tabriz between 1307 and 1314.⁶

The relation of the London Qazvīnī to the Edinburgh al-Bīrūnī is especially evident in two illustrations that are among the few to show a more complex composition. They represent the stories



Figure 4.1 'Amr ibn al-ʿĀs and the River Nile, fol. 62v, 152×132 mm.



Figure 4.2 Dancer and Musicians at the Spring of Ilābistān, fol. 63v, 70×170 mm.



Figure 4.3 'Inviting the angels to descend from the sky' or 'A king celebrates Mihrijan' from a manuscript of the *Kitāb al-āthār al-bāqīya* 'an *al-qurūn al-khāliya*, also known as the *Edinburgh al-Bīrūnī*, dated 1307. *Edinburgh University Library*, ms. 161, fol. 100r. *Courtesy of Edinburgh University Library.*

of 'Amr ibn al-ʿĀs and the River Nile' (cat. 120) and 'Dancers and Musicians at the Spring of Īlābistān' (cat. 121). The first painting shows one of the best compositions in the manuscript: around the sitting figure (the protagonist of the story, 'Amr ibn al-ʿĀs)⁷ a small crowd of six standing men address him in front of the entrance to the Nilometer building; in the lower part of the illustration a female figure floats in the Nile, fully dressed. The second illustration (cat. 121) is less complex since its five musicians and the dancer are set on a plain grassy foreground, all on the same plane of vision.

Apart from their obvious general stylistic similarities, these two paintings include several details which are also found throughout the twenty-five illustrations of the Edinburgh manuscript. The most striking of these is the position of the hands of the two men facing the right of 'Amr ibn al-ʿĀs, in the foreground. The back of the left hand is seen in profile with all the fingers joined except for the thumb; the right hand is seen instead from a different and higher perspective, so that its palm is shown almost in full; the fingers are arranged in the same position as those of the left hand. This exact expressive communicative convention for both right and left hands is present in the *Edinburgh al-Bīrūnī* in instances when one person is engrossed in conversation with another: for example, at fol. 92r (one of the two men standing on the right side), fol. 92v (the figure of Bihafarid), fol. 100r (the man standing on the right and the white-bearded figure sitting in front of the king) and fol. 101v (the figure of Adam).⁸



Figure 4.4 Orion (al-jabbār), fol. 9r, 94×173 mm.

A second detail of close similarity between the two manuscripts occurs in the shape of the turbans (*amā'im*) worn by all the figures in the two London paintings (cat. 120 and 121), which is the most often encountered type throughout the manuscript. It is a small-size turban with an indication of parallel folds running towards the forehead and a large band of cloth which tightens the headdress around the head. An oval gold halo framed by a thin black double border surrounds head and shoulders of each figure. This is also the most common type of headdress in the Edinburgh al-Bīrūnī although it is generally drawn with more attention to details. This turban is often enriched by a *tiraz* band rather than by the plain strip of cloth that occurs in the London manuscript. Examples that are virtually identical to those in the London Qazvīnī are found in the Edinburgh al-Bīrūnī at fol. 16r (the figure sitting on the left with the hand on his chin), fol. 91r (the two men on the left), fol. 100r (the black-bearded man sitting), fol. 101r (all the turbaned figures) and fol. 103r (in particular the man kneeling on the left of the fire and the figure on the right).⁹

Other illustrations in the London Qazvīnī depict three different types of turban shared by the two codices. Three consecutive illustrations in the section on jinns show figures who wear a rather loosely wrapped turban (*dhu'āba*)¹⁰ which folds once or twice under the neck, one end either hanging loose on the shoulder or floating in the air (cat. 250–2). The same turban is worn by 'Alī and his sons Hasan and Ḥusayn in the Edinburgh al-Bīrūnī (fol. 161r), and again by 'Alī and two spectators on his left (fol. 162r).¹¹

A second type of headdress is found in the illustration of the constellation of Orion (cat. 2) towards the beginning of the London Qazvīnī. The large turban of the giant Orion, tightly wrapped and

with the indication of many folds, has an exact parallel in the Edinburgh al-Bīrūnī as worn by a seated Indian (fol. 129v).¹²

The third and last type of turban is similar to, but larger in size than, that worn by ‘Amr ibn al-‘Ās and the other figures in the two paintings mentioned above.¹³ It is found in ‘A Story: The Lemon as an Antidote’ (cat. 177) as worn by the man battling the snake. The same turban appears eight times in the Edinburgh al-Bīrūnī towards the end of the manuscript (three sitting persons, fol. 129v; all the figures, fol. 133v; and St John, fol. 140v).¹⁴

In the illustration of the river Nile (cat. 120), the Nilometer is represented as a column made of bricks dressed in the plaster-bond technique described in Chapter 3, in this case pale orange bricks and light grey plaster.¹⁵ The same decorative effect is present twice in the Edinburgh al-Bīrūnī, at fol. 91r and fol. 134v,¹⁶ although the most commonly represented pattern in the manuscript is that of ‘brick-end plugs’.¹⁷

The dancer and two of the musicians at the Spring of Īlābistān (cat. 121) wear tunics with a peculiar square decoration on their chest. It is the so-called ‘Mandarin square’ of Chinese origin which was introduced in Iran under the Ilkhanids. One illustration in the Edinburgh al-Bīrūnī shows the same type of decoration on the short-sleeved tunic worn by King Peroz at fol. 104v.¹⁸

The facial types of the male figures of the London Qazvīnī can be divided into three categories. Although they all have generic ‘Mongol’ features (curving eyebrows, small nose and long, narrow eyes), they show two different types of beard and some are clean-shaven. ‘Amr ibn al-‘Ās and the men around him are all bearded, and so are two among the musicians at the Spring of Īlābistān: they wear a large moustache curving downward and their beards are rather thick, although part of their cheeks has been shaved. In other illustrations a different and more common type of beard occurs, which is similar to the first but for the fact that the cheeks are left unshaved, giving the impression that the beard grows naturally (see for example cat. 2, 177, 250–2). In the Edinburgh al-Bīrūnī both types of beard are present with the notable difference that – while they are equally distributed throughout the London Qazvīnī – unshaven cheeks appear only in the last seven illustrations whereas the first eighteen paintings show only shaven cheeks.

It may be suggested therefore that a different painter took over the depiction of facial types in the Edinburgh al-Bīrūnī after the first eighteen illustrations, which may be confirmed by a distinct, though subtle, different style in the last seven illustrations. In the London Qazvīnī this distinction cannot be made, suggesting a more consistent and uniform production.

A further detail shared by the London and Edinburgh manuscripts is a decorative pattern twice found in relation to furnishings in both codices. This distinctive pattern is composed of elongated hexagons

arranged alternately in horizontal and vertical rows in order to form a continuous cross-shaped design, the gaps between the branches of each cross creating a square figure. A short line is drawn in the centre of each hexagon, parallel to the longer sides. This motif is present in both manuscripts as part of the decoration of the back of the throne of King Solomon in the London Qazvīnī (cat. 246) and that of the High Priest Eli in the Edinburgh al-Bīrūnī (fol. 133v).¹⁹

The pattern is not intended to represent only carved or painted wood ornament for furniture. In the London manuscript it is noticeable in the decoration of the internal wall of a brick building in 'The Man and the Jinn That Turns into a Serpent and a Camel' (cat. 250), while in the Edinburgh codex it was used as a textile pattern since it decorates the interior of a tent at fol. 157v.²⁰

The London and the Edinburgh manuscripts also share several details of the landscape. However, these are more relevant to the discussion on the New York *Bestiary* that follows later in this chapter.

A single illustration in the Diez Albums in Berlin

The last painting in the section on jinns in the London Qazvīnī represents the singer Ibrāhīm playing the lute in front of a jinn disguised as an old man who offers him a glass of wine (cat. 254).²¹ The musician sits on the left side of the painting. The relation of this miniature to those in the Edinburgh al-Bīrūnī is evident in details such as the shape of the turban worn by the two men, their



Figure 4.5 *The Singer Ibrāhīm and the Jinn Disguised as an Old Man*, fol. 102v, 80×117 mm.



Figure 4.6 'The singer Ibrāhīm and the jinn disguised as an old man', possibly from a lost copy of the 'Ajā'ib al-makhlūqāt, early fourteenth century. Pasted in the Diez Album, Staatsbibliothek, Berlin, fol. 71, S. 11.

facial features and the plaster-bond brickwork, as already discussed above.

This illustration, however, is surprisingly almost identical to another bound today in one of the so-called Diez Albums in Berlin²² (fol. 71, S. 11).²³ The only distinctive difference is that in the Diez Album the old man/jinn is appropriately represented as a white-bearded figure whereas in the London Qazvīnī he wears a black beard. Otherwise, the composition of the two paintings is identical and they differ only in some minor details. The figures are set against a red background in both illustrations although the frame is different: in the London painting brickwork surrounds the scene and forms the 'broken arch' discussed in the previous chapter; in the Berlin illustration the same arch is obtained by means of the 'spandrel' device usually found earlier in numerous thirteenth-century paintings.²⁴ The lute player sits on the floor in the London manuscript, his head bent towards his instrument, focusing on the song he sings and the music he plays; in the Berlin painting his head is raised and he looks at the old man while playing his lute. In both illustrations the jinn disguised as an old man extends his right hand, reaching out to his companion with a glass of wine; in the London painting, he holds a bottle in his left hand, whereas the same bottle stands on the floor behind the man in the Berlin miniature. The white-bearded man

kneels on the floor in the Berlin painting; the black-bearded man instead sits cross-legged in the London illustration.

Although convivial drinking and singing scenes are not rare in thirteenth-century miniature painting, the uncanny similarity between the two illustrations suggests that the Berlin painting – presently deprived of any context, having been pasted in an album – might have belonged to another contemporaneous copy of the *‘Ajāʾib al-makhlūqāt* given the narrative and specific nature of the illustration.²⁵ However, the painting in Berlin does not present any text on the reverse, which suggests instead that it was not created for a manuscript but simply copied from a copy of al-Qazvīnī’s text. Oddly enough, it is the white-bearded man in the Berlin painting that adheres more closely to the text, for the jinn is described by al-Qazvīnī as an old man.

A link between the Berlin illustration and the Edinburgh al-Bīrūnī is also evident after closer analysis. In the ‘Feast of Sada’ (fol. 103r)²⁶ people drink from a bottle that is almost identical to the object standing behind the man in the Berlin painting. Its splayed foot, globular body painted in gold, horizontal band decorated with vegetal motifs, and long tapering neck are shared by the two paintings, the only difference being that the Berlin bottle presents further ornamental patterns at the point of attachment of the neck and foot. The glass beakers are also identical: they are conical with a large mouth and narrow, flaring body, made to represent undecorated colourless glass, and filled with strokes of red to represent wine. Fruit similarly illustrated to that in the Berlin painting is found in the ‘Festival of Farwadijan’ in the Edinburgh al-Bīrūnī (fol. 101v).²⁷

Another detail shared by the Berlin and the Edinburgh illustrations is the tunic worn by the lute player, which has distinctive ‘curly’ folds exactly as in many miniatures of the Edinburgh al-Bīrūnī (for example, the figure of Abraham in ‘Abraham Striking the Buddhist Statue’, fol. 88v).²⁸ Also, the floral decoration of the columns framing the Berlin illustration finds a precise parallel on the throne where the Prophet Muḥammad sits in ‘Muḥammad and the Envoys of Musailama’ of the Edinburgh manuscript (fol. 92r).²⁹

It has been possible to demonstrate that there is a close relationship between a number of paintings in the London Qazvīnī (cat. 2, 120–1, 177, 246, 250–2 and 254), the Edinburgh al-Bīrūnī and the single illustration in the Berlin album. This represents a compelling argument to suggest a date of production for the London Qazvīnī close to the al-Bīrūnī codex of 707/1307. Moreover, so many details are shared by some of the London paintings discussed here and by those in Edinburgh – the gesture of the hands of people in conversation being the most revealing – that it may be postulated that the same painter could well have worked on both manuscripts. Consequently, since the most likely place of production of the London Qazvīnī remains Mosul, as argued in this study, is it possible

that the same origin can be claimed for the Edinburgh codex in addition to the previously suggested Tabriz and Maragha?

Speculation, of course, does not provide a definite answer but it helps towards a reconstruction of the complex puzzle of early fourteenth-century book illustration under Ilkhanid patronage. Nothing is known of the lives and works of painters and illustrators of manuscripts in this period from the available sources. No name has been transmitted and no workshop has been safely identified outside the celebrated Rabʿ-i Rashīdī in Tabriz. The question is left open as to whether painters were employed to work permanently in a single workshop where the manuscripts were planned and created, or whether they used to travel from city to city in the region in order to offer their services where needed, obtaining in this way temporary employment. If the latter was the case, then the quest for the precise location of the production of a manuscript becomes less important, since the itinerant life of the artist meant that his training did not necessarily take place in the same cities or ateliers where he was active.

The New York *Bestiary*

The *Kitāb-i manāfiʿ-i ḥayavān* ('The Book on the Benefits of Animals') in the Pierpont Morgan Library in New York (ms. 500) is the second manuscript which shows a close relationship to the London Qazvīnī.

The New York *Bestiary* is a celebrated codex written in Persian that has attracted the interest of many scholars.³⁰ Most likely several painters contributed to the 102 illustrations in this manuscript. Ernst Grube attempted a division into ten different groups according to stylistic details, which is not entirely satisfying.³¹ Recent investigation of the codex has thrown new light on this important manuscript.³²

The codex is especially important because its colophon states that it was copied at Maragha and its preface explains that it was created under the rule of the Ilkhanid Ghāzān Khān. The date is also present in the colophon but its reading represents a problem because of damage to the text. This date appears to be 690/1291.³³ The dedication of the book to Ghāzān Khān, however, makes this date untenable because he only ascended the throne in 694/1295. As suggested by Barbara Schmitz, the date should be read as either 697/1297–8 or 699/1299–1300 because the last letter of the unit seems to end with the letter 'ayn' (either *sabʿ*, 'seven', or *tisʿ*, 'nine'). Whichever date is correct, the manuscript was certainly finished in the last decade of the thirteenth century, corresponding to the last decade of the seventh century AH.³⁴

Given the nature of the text, the illustrations in the New York *Bestiary* almost exclusively represent animals and include elements of landscape. Human figures are nonetheless present in the first



Figure 4.7 Ebony (abanūs), fol. 77v, 74×64 mm; Myrtle (ās), fol. 77v, 90×75 mm.

painting, which illustrates ‘Man and Woman’, and in a small number of miniatures scattered throughout the manuscript.³⁵ There are also several paintings added much later, some of them showing scenes from the *Shāhnāma*, which are of little importance for the present discussion.³⁶

The relationship between the New York *Bestiary* and the London Qazvīnī is more evident in the elements of landscape than in the rendering of the animals. Although it is unlikely that the painters of animals in the New York *Bestiary* were the same as those who worked on the London codex, a few similarities can be noticed. Other details such as the rendering of water and facial features also link the two codices.

The landscape and many details of the vegetation are the most striking features which allow the New York *Bestiary*, the London Qazvīnī and the Edinburgh al-Bīrūnī to be regarded as three manuscripts to be discussed together, almost forming a group of their own in the panorama of late thirteenth- and early fourteenth-century painting under the Ilkhanids.

The three codices share a peculiar rendering of the ground by means of impressionistic brush strokes to represent tufts of grass in the foreground. Sometimes, in the best illustrations, horizontal or diagonal lines indicate different ground levels and render a

credible landscape.³⁷ The illustrations that best represent this type of complex landscape are the majority in the New York *Bestiary*, whereas they are seldom encountered in either the London Qazvīnī ('Type 5', as discussed in Chapter 2) or the Edinburgh al-Bīrūnī.³⁸ A similar but more elaborate way of rendering the landscape is also found, included in far more complex scenes, in the Great Mongol *Shāhnāma*, which represents the highest expression of Ilkhanid book illustration.³⁹

The New York *Bestiary* and the London Qazvīnī share other details of landscape and tree or plant rendering. The large plant or tree facing the 'Jackal' in the *Bestiary* (fol. 23r)⁴⁰ is very close to the 'Myrtle' (cat. 124) of the London manuscript.⁴¹

The 'Water Boar' in New York (fol. 27v)⁴² includes grass in the foreground that was drawn as an undulating strip of fine criss-cross patterns from which thicker, sketchy grass emerges. Executed in a less complex manner, the same pattern corresponds to the most often encountered foreground throughout the London Qazvīnī (Type 1), where it is usually set against a blank background.

Part of the base of the tree trunk of the 'Oryx' (fol. 35r) or a related animal⁴³ rests on one plane while a large root extends into a different ground level. This detail is strongly reminiscent of the base of the tree where the giant bird rests in the London manuscript in the 'Man from Isfahan Rescued by the Giant Bird' (cat. 62).

The pointed oval leaves with thickly drawn darker edges of the tree behind the 'Buffalo' (fol. 42r)⁴⁴ are close to those of the 'Mudar Plant' in the London Qazvīnī (cat. 160). The same can be said for the leaves of a tree at fol. 47r⁴⁵ as compared to those of the tree where the giant bird rests in the London Qazvīnī (cat. 62).

Large flowered plants appear in the 'Magpie' (fol. 61r) and the 'Ostrich' (fol. 63r);⁴⁶ the same plant is present in the London Qazvīnī (cat. 77, 88, 176 and 185).

Finally, on the edge of the pond where the 'Ducks' swim (fol. 66r)⁴⁷ appears a curly grass strip: this treatment is found both in the London Qazvīnī ('Type 4') in the section on the trees (cat. 152, 156, 160, 168, 175 and 182) and in the Edinburgh al-Bīrūnī (fol. 140v).⁴⁸

The rendering of water also reveals parallels between the New York and the London codices. In the 'Buffalo' (fol. 42r) and the 'Otter' (fol. 48v),⁴⁹ the water is depicted in the same way as in the illustration of the River Nile (cat. 120) in the London manuscript: the movement of the water is indicated by undulating blue strokes which form fanciful curls and patterns.

A different type of water rendition is also shared by the two manuscripts: the pattern is created by a continuous series of superimposed Chinese-inspired fish-like 'scales' representing waves; in the middle of each scale is painted a single curl of foam. This pattern appears in the New York *Bestiary* three times (fols 70r, 76r and 80r)⁵⁰ and



Figure 4.8 *The Fish Called 'Sayalān', fol. 33r, 40×70 mm; Dugong (aṭum), fol. 33r, 27×75 mm; A Species of Crab, fol. 33r, 47×80 mm; Giant Snakes, fol. 33r, 87×165 mm.*



Figure 4.9 *The Sheep of the Island of Jālita, fol. 44r, 85×168 mm; The Island of the Monastery, fol. 44r, 75×110 mm.*



Figure 4.10 *The Island of the Sheep, fol. 46v, 93×171 mm.*

corresponds to two other illustrations in the London Qazvīnī (cat. 37 and 244).

The animals in the New York *Bestiary* do not have the same close relation to those in the London Qazvīnī as does the landscape. Many of them are more refined and detailed, their fur is well indicated, their position is carefully studied; in short, they betray a

higher artistic level. Nonetheless, the same standard is not maintained throughout the whole manuscript. In the second part of the codex (after fol. 50), the illustrations become smaller in size, less refined, and closer to the more didactic intention of the London manuscript: they are set within a modest landscape, seen strictly in profile, and their drawing is simple.⁵¹

However, a few close parallels can also be found in the first part of the New York manuscript which is of higher artistic value.⁵² The pattern of the spots and the tail of the 'Leopard' (fol. 181r)⁵³ are very similar to those of the same animal in the London codex (cat. 279). The position in profile, the shape of the body and especially the head of the 'Cheetah' (fol. 18v)⁵⁴ strongly remind one of the corresponding feline in London (cat. 276). The fur and the drawing of the legs of the 'Fox' (fol. 22r)⁵⁵ are almost identical to those of the 'Hyena' in the London Qazvīnī (cat. 274). The general features of the 'Boar' (fol. 25r) and the 'Marten' (fol. 50r)⁵⁶ are very close to their counterparts in the London manuscript (cat. 269 and 271).

Among the birds, the position of the two ostriches mentioned above (fol. 63r) is very similar to that of the cranes in the London Qazvīnī (cat. 315): in both manuscripts, one of the two birds looks animated, its wings and beak open in distress or excitement, whereas the other bird is quiet and almost puzzled by the behaviour of the former. In the New York *Bestiary* the excited ostrich holds an egg in its beak. The 'Swallows' (fol. 69v)⁵⁷ are represented in flight against



Figure 4.11 Chestnut (shāhballūt), fol. 84r, 83×77 mm; Sandalwood (ṣandal), fol. 84r, 64×68 mm; Pine (ṣanawbar), fol. 84r, 95×87 mm.



Figure 4.12 Almond (lawz), fol. 88v, 88×83 mm.



Figure 4.13 Syrian Christ-thorn (nabiq), fol. 90r, 85×101 mm; Date Palm (nakhl), fol. 90v, 65×95 mm.

a blank background, exactly like those in the London Qazvīnī (cat. 292).

Finally, the very first illustration in the *Bestiary* represents 'Man and Woman' (fol. 4v).⁵⁸ The two figures find a close parallel in the facial features of the three archangels Gabriel, Michael and Azrael in the London Qazvīnī (cat 13–15).⁵⁹

In conclusion, this discussion of the relation of the London Qazvīnī to both the Edinburgh and the New York manuscripts is particularly useful to demonstrate a date around the turn of the fourteenth century for the production of the London Qazvīnī. Close parallels with the Edinburgh al-Bīrūnī are found in a small number of illustrations in the London Qazvīnī, corresponding to some of the best



Figure 4.14 Rose (ward), fol. 90v, 74×87 mm; Jasmine (yasmin), fol. 90v, 58×80 mm.



Figure 4.15 Common Marten (*dalaq*), fol. 110r, 56×77 mm.



Figure 4.16 Hyaena (*dabu'*), fol. 111r, 67×75 mm.



Figure 4.17 Leopard (*namr*), fol. 113v, 86×107 mm.



Figure 4.18 Swallow (khattāf), fol. 117v, 61×77 mm.



Figure 4.19 Crane (gharniq), fol. 123v, 75×82 mm; Grebe or Diver Bird (ghawwāṣ), fol. 123v, 67×82 mm; Collared Turtle Dove (fakhita), fol. 123v, 38×82 mm.

paintings in the latter codex. The relation to the New York *Bestiary*, though less evident, can be seen instead throughout the whole London manuscript, especially in the landscape elements. Regardless of the precise date of completion of the New York *Bestiary* (690/1291 or after Ghāzān Khān's accession to the throne in 694/1295), the London manuscript seems to fit well between this date at one end and that of the Edinburgh al-Bīrūnī of 707/1307 at the other.

Notes

1. The Arabic edition of this work is al-Bīrūnī 1878; the English translation is al-Bīrūnī 1879.
2. Abū al-Rayḥān Muḥammad ibn Aḥmad al-Bīrūnī al-Khwārizmī was born of an Iranian family in 362/973 in the suburb of Kath, capital of Khwārizm. His first benefactor was the Samanid sultan Maṣṣūr II ibn Nūḥ (r. 387–9/997–9). Next, he was for a long period at Jurjan where he dedicated his first important work, the *Kitāb al-āthār al-bāqīya*, to the Ziyarid sultan Qābūs in c. 390/1000. He returned to his native country before 399/1008 for seven years. After the Ghaznavid conquest of the area in 407/1016–17 he was brought as a prisoner to Ghazna where he probably became official astronomer to Sultān Maḥmūd Ghaznavī (r. 1002–30). Until his death shortly after 442/1050 he lived at the Ghaznavid court, where he wrote three other important works: the *Ta'rikh al-hind* ('History of India'), the *Kitāb al-tafhīm li-awā'il sinā'at al-tanjīm* ('Book on the Knowledge of the Principles of Astronomy') and the *Kitāb al-qānūn al-mas'ūdī* (generally known as 'Canon Masudicus'). The total number of his works is in excess of 180. See Boilot, 'al-Bīrūnī', *El2*. See also the note in the text of cat. 54 in the Catalogue of the Illustrations, Part Two.
3. In addition to an article by Soucek, who published all twenty-five illustrations, see Arnold 1924: figs 15–17, Arnold 1928: pl. XVIII, Arnold and Grohmann 1929: pls 36–9, Arnold 1932: pls IV–V, Binyon, Wilkinson and Gray 1933: pl. XV A, Stchoukine 1936: XII, 80–1, Barrett 1952: pl. I and Hillenbrand 2000: figs 5–6 and 12–14. See also Carboni 1988–9: note 22. All pages with illustrations are available online at <<http://images.is.ed.ac.uk/luna/servlet/view/all/who>> (last accessed 23 January 2015) at the University of Edinburgh Image Collections.
4. Soucek 1975 and Hillenbrand 2000.
5. See for example Gray 1961: 26–7 and Soucek 1975: 157, who also suggests Maragha.
6. Barrett 1952: 6, Grube 1978: 12 and Carboni 1988–9: 17.
7. See note in the text of cat. 120 in the Catalogue of the Illustrations, Part Two.
8. Respectively figs 7, 8, 12 and 14 in Soucek 1975; see also Hillenbrand 2000: fig. 12.
9. Respectively figs 3, 6, 12, 13 and 15 in Soucek 1975.
10. Dozy 1845: s.v. 'Imāma': 'L'usage de laisser pendre un bout de la pièce d'étoffe est fort ancien. Ce bout porte le nom de *'udhba* ou de *dhu'āba*.'
11. Respectively figs 24 and 25 in Soucek 1975.
12. Soucek 1975: fig. 18.
13. Among the Mamluks, the size of turbans used to vary according to the

fashion. Mayer (1952: 31) writes: 'Such turbans as were worn by the very late Ayyubid and early Bahri amirs were small. At some unspecified date they became bigger, and in 690/1291 the viceroy of Syria, Sanjar al-Shujā' forbade the amirs to wear big turbans. Under Sha'bān ibn Ḥusayn they were made larger again, and of more elegant shape. They remained large for some time, and Qalqashandī described them as being thus in his days.'

14. Respectively figs 18, 19 and 21 in Soucek 1975.
15. The relation between this type of decoration for the walls of buildings and existing architecture has been dealt with in Chapter 3. The present comment is related only to its representation in the illustrations.
16. Respectively figs 6 and 20 in Soucek 1975.
17. See Wilber 1955: 80, pl. 62.
18. Soucek 1975: fig. 17.
19. Soucek 1975: fig. 19.
20. Soucek 1975: fig. 23.
21. See the translation of this story in the text of cat. 254 in the Catalogue of the Illustrations, Part Two.
22. These well-known albums, so called after their former owner Ernst Diez, are in the Staatsbibliothek Preussischer Kulturbesitz, Orientabteilung, and can be compared with the celebrated albums in the Topkapı Sarayı Library, H. 2152, 2153, 2154 and 2160. Some calligraphic exercises are found throughout the pages of the albums in Berlin, whereas the rest is a patchwork of miniature paintings of different periods made for albums or without any hint of the text they once belonged to. Many of their illustrations have been published, often in colour, although no complete analytical study of the albums as a whole has been completed thus far. A general presentation and division of their illustrations in historical periods is in Ipşiroğlu 1964 and a general study of early illustrated albums in the Islamic world is Roxburgh 2005. See also the recent Sims 2012. A symposium took place at the Berlin State Library in June 2013 devoted to this specific subject, and an exhibition entitled 'Meisterwerke aus dem Serail: Die Klebealben des Heinrich Friedrich von Diez' was concurrently on display at the Museum of Islamic Art in the same city.
23. Published in colour in Ipşiroğlu 1964: 11–12, no. 7, pl. 3 and George et al. 1980: cover plate.
24. See the discussion in Chapter 3.
25. Ipşiroğlu (1964: 11) thinks that this miniature comes instead from a dispersed copy of al-Ḥarīrī's *Maqāmāt*.
26. Soucek 1975: fig. 15.
27. Soucek 1975: fig. 14.
28. Soucek 1975: fig. 5.
29. Soucek 1975: fig. 7 and Hillenbrand 2000: fig. 12. The similarity between the Berlin painting and the Edinburgh codex had already been noticed by Ipşiroğlu 1964: 12.
30. Among them, see for example Ağa Oğlu 1933, Dimand 1933–4, Stchoukine 1936: 78–80, Holter 1937: no. 57, Ettinghausen 1954 and Grube 1978: 5–11.
31. Grube 1978: 6–10. The only monographic work on the manuscript is an unpublished MA thesis, although it is mainly based on the previous literature on the subject: M. P. Barish, New York, Institute of Fine Arts, 1978.
32. Anna Contadini's conclusions appear in her doctoral thesis at the

- School of Oriental and African Studies, London; see Contadini 1992 and her additional thoughts throughout the recent Contadini 2012. Schmitz 1997: 9–24 is the most recent detailed study, in which she goes as far as suggesting that the illustrations of Mercury and the archangels in the London Qazvīnī (cat. 1 and 13–15) ‘may be the work of Painter I’ in the New York *Bestiary* (p. 13).
33. According to Grube 1978: 5, note 7, as already noticed by Ağa Oğlu 1933.
 34. Schmitz 1997: 11. This is because only the two numbers ‘six hundred’ (*sittumi’a*) and ‘ninety’ (*tis’in*) are clearly legible.
 35. Fols 4v, 31r, 42v, 44v, 47r, 49v, 54r, 80r and 80v.
 36. The illustrations were probably added in the Qajar period. They have been painted over parts of the text. The late miniatures are at fols 3v, 6v, 23v, 25v, 36r, 47v, 59r, 73v, 79r, 85v and 86v, but a close inspection would probably add some more illustrations to these.
 37. A detailed description of the landscape, or vegetal foreground, in the London Qazvīnī is in Chapter 2.
 38. In the London manuscript this landscape appears at cat. 62, 77, 79, 149, 168, 174 and 265. In the Edinburgh codex it appears at fols 48v, 92v, 129v, 161r and 162r; see Soucek 1975: figs 4, 8, 18, 24 and 25 and Hillenbrand 2000: figs 13–14.
 39. Grabar and Blair 1980: figs 14, 16, 18, 20, 30, 33, 38, 41, 42, 49 and 53.
 40. Martin 1912, II: pl. 26d and Schmitz 1997: fig. 12.
 41. In general, from fol. 23 of the New York *Bestiary* the way of rendering leaves and trunks is more similar to that in the London Qazvīnī than the illustrations in the previous folios.
 42. Grube 1978: fig. 2.
 43. Kühnel 1964: pl. 819A.
 44. Schmitz 1997: fig. 20.
 45. *Natural History Magazine*, 67 (1958): 561.
 46. The first illustration is in *Natural History Magazine*, 67 (1958): 562; the second is unpublished.
 47. Schmitz 1997: fig. 31.
 48. Soucek 1975: fig. 21.
 49. The first is published in Schmitz 1997: fig. 20, the second in Grube 1978: fig. 3 and Schmitz 1997: fig. 22.
 50. The third illustration is in Schmitz 1997: fig. 38.
 51. See especially the two illustrations at fol. 50v, representing the ‘Ermine’ and the ‘Weasel’.
 52. Schmitz (1997: 12–15) considers the relationship between the illustrations of the New York *Bestiary* and the London Qazvīnī to be much closer than purported in the present discussion, to the point where she suggests that the same painters worked on the two manuscripts as well as the Edinburgh al-Bīrūnī. Although I feel cautious about such a statement, nonetheless Schmitz’s enthusiasm well supports my analysis and conclusions throughout the present chapter.
 53. Martin 1912, II: pl. 23a, Kühnel 1964: pl. 819B and Schmitz 1997: pl. 3.
 54. Schmitz 1997: fig. 9.
 55. Schmitz 1997: fig. 11.
 56. The first illustration is in Schmitz 1997: fig. 13.
 57. Unpublished.
 58. Grube 1966: no. 35 and Schmitz 1997: front cover and pl. 1.
 59. See the discussion in Chapter 3.

CHAPTER FIVE

The Illustrations of the London Qazvīnī and Related *‘Ajā’ib al-makhlūqāt* Manuscripts

EXTANT ILLUSTRATED COPIES in Arabic¹ of the *‘Ajā’ib al-makhlūqāt* from the thirteenth and fourteenth centuries are rare. One manuscript – the Munich Qazvīnī in the Munich Staatsbibliothek (Ar. 464)² – has survived almost intact but for three folios. It is the most important and best-known copy of this text since its colophon firmly dates it to 678/1280. This codex represents therefore the earliest surviving copy of the *‘Ajā’ib al-makhlūqāt*: it was completed at Wasit in Iraq and was possibly supervised, or at least sanctioned, by al-Qazvīnī himself, who died only three years later in 682/1283. Its importance is enhanced by the fact that the manuscript is also considered as the original second version of the text made by al-Qazvīnī.³ The codex therefore constitutes an essential frame of reference both for a textual analysis and for its cycle of illustrations.

There exist three other illustrated copies of al-Qazvīnī’s text certainly datable to the fourteenth century, two of which are very fragmentary.⁴ The first one is a fragment in the Forschungsbibliothek in Gotha, A 1506. It is in bad condition although restored in Munich in the 1980s.⁵ It has been the subject of two articles by Karin Rührdanz, who regarded its illustrations as having been executed in Shiraz in the second quarter of the fourteenth century.⁶ It will be shown, however, that the close relationship of its text, layout and cycle of illustrations to the Munich Qazvīnī and a stylistic analysis of its paintings suggest a date closer to the beginning of the fourteenth century.

The second manuscript is almost complete (only twelve folios are missing) and was recently brought to scholarly attention by Persis Berlekamp.⁷ It is housed in the Süleymaniye Kütüphanesi in Istanbul (Yeni Cami 813), has 181 folios and includes 459 original illustrations plus four which were added in the sixteenth century. The text, which is based faithfully on the edition of the Munich Qazvīnī, was copied by Muḥammad ibn Mas‘ūd ibn Muḥammad ibn Maḥmūd al-Ḥamadānī in the year 722/1322. According to Berlekamp, its style of paintings makes it likely that the manuscript was copied and illustrated in Shiraz under Injuīd patronage.

The third fragmentary manuscript – presently in the collection of

the Museum of Islamic Art in Doha, Qatar (MSS 647) – surfaced at a sale at Sotheby's in London in 1990⁸ and was briefly studied in a preliminary article by Anna Contadini and the present writer.⁹ Only a small number of illustrations survive of the original manuscript, thus its importance as a point of reference for the illustrative cycle of the early copies of al-Qazvīnī's text is slight. Judging from a stylistic analysis of its paintings, the manuscript was illustrated in a Syrian Mamluk atelier in the second quarter of the fourteenth century.¹⁰

The four codices in Munich, London, Gotha and Doha share a large format (the Doha Qazvīnī being the largest work whereas the Istanbul is sensibly smaller) and number of lines of text to the page: Munich 310×205 mm, twenty-seven lines; Istanbul 264×176 mm, thirty-one lines; Gotha 290×210 mm, twenty-seven lines; Doha 320×230 mm, twenty-five lines. The London Qazvīnī's dimensions are 312×198 mm with twenty-five lines of text to the page.

Although these five codices must represent a minimal portion of the actual production of illustrated copies of the *'Ajā'ib al-makhlūqāt* in the first decades of the fourteenth century, it is nonetheless possible to emphasise a few basic points we can infer from them. The first point is that slightly different Arabic versions of the text existed within the space of two to three decades, since the Munich and the London manuscripts have a dissimilar preface and the latter has a dedication to the Ilkhanid governor 'Aṭā Mālik Juvainī.¹¹ The translation into Persian, which was apparently completed only in the late fourteenth century notwithstanding the fact that the author was born in Iran and fully bilingual, is closer to the London than the Munich codex. On the other hand, the text of the Istanbul Qazvīnī, which was copied in a Persian-speaking environment, relies entirely on the Munich version.

The second point is that the five known early Arabic versions are relatively consistent in their format: they have large dimensions, a closely comparable number of folios and illustrations and a similar general layout. However, there are also sensible variations between them. For example, with roughly the same number of illustrations as the Munich codex (459 vs 468), the Istanbul manuscript is smaller in size but denser in text at thirty-one lines per page, resulting in a lower total number of folios (181 plus an estimated twelve missing, bringing it to 193) as compared to the other versions (212 in the complete Munich Qazvīnī; c. 210–15 in the fragmentary London and Gotha codices consistent with their reconstruction). The Gotha and Istanbul manuscripts were created in the same artistic environment, presumably Shiraz in Fars, and ostensibly within the space of a decade or so; indeed, they share a few typical traits of the transitional period between the indirect Ilkhanid control over the region and the de facto dominance of the Injuids. However, in addition to having different dimensions (Gotha 290×210 mm but originally larger, its pages having been trimmed; Istanbul 264×176 mm) there are also

some distinctions in the standard and quality of their illustrations – the codex in Gotha being ostensibly the better one – and a few interesting variations in the way the artists have depicted some of their subjects,¹² which suggest that the local clientele was diversified (assuming they were both produced in Fars) and that several illustrated copies of the *‘Ajā’ib al-makhlūqāt* were made in or near Shiraz at that specific time.

A third point is that the five manuscripts provide a basic but hopefully truthful map of the rapid ‘concentric’ geographical diffusion of this text within three generations after al-Qazvīnī’s death: his home region of central Iraq while he was still alive (the Munich codex); the area of Mosul in the Jazira, where he had studied in his formative years, about twenty years later (the London Qazvīnī); the Ilkhanid- and later Injuid-controlled area of southern Iran in the 1310s and 1320s (the Gotha and Istanbul manuscripts);¹³ and finally Syria in the second quarter of the fourteenth century outside Ilkhanid influence and under the control of the Mamluks, their archrivals who nonetheless were fascinated by their intellectual, cultural and artistic output and their Mongol-Chinese roots (the Doha fragment).

The fourth and most important point is that the Munich codex was finished by its copyist in Wasit, where al-Qazvīnī had been a *qadi* and a professor, three years before his death and must therefore represent a sanctioned copy regardless of whether its author was directly involved in its production, used it as a textbook, was at least aware of it, or had no knowledge of its specific existence. By extension, we can infer that the *‘Ajā’ib al-makhlūqāt wa gharā’ib al-mawjūdāt* – differing in this from the other well-known text compiled by this author, the *Āthār al-bilād wa akhbār al-‘ibād*¹⁴ – was conceived, written and planned by its very author to be an illustrated text.

The purpose of the present chapter is to offer an analysis and interpretation of the Table of Comparison of the cycle of illustrations of the five manuscripts located at the end of this chapter in order to understand how the London Qazvīnī is related to the other four codices. The Table is also useful for a reconstruction of the number of illustrations originally found in the fragmentary London manuscript, one of the main goals of this monographic study.

An important distinction is indicated in the Table of Comparison with the abbreviations ‘NC’ (Not Copied) and ‘NI’ (Not Illustrated): the former means that that specific part of text was not copied, the latter that the text is present but no illustration was planned. The scientific identification of the subjects not listed in the Catalogue of the Illustrations of the London Qazvīnī because their folios are missing (see the Description in Part Two) is taken from Berlekamp’s study of the Istanbul Qazvīnī and compared with Badiee’s former work on the Sarre manuscript as well as my 1992 dissertation.¹⁵

The precise number of the paintings which once illustrated

the London Qazvīnī is unknown due to its unpredictable illustrative programme. However, in a hypothetical reconstruction of the missing pages it can be assumed that at least in the 'scientific' sections (including planets, stars, angels, trees, plants and animals) the folios included an illustration for each entry, as is the universal rule in the copies of this text as proven by the other extant comparable manuscripts. The Table of Comparison demonstrates that as many as 152 illustrations have likely been lost, without counting possible additional narrative illustrations scattered throughout the missing folios. The number of illustrations in the London Qazvīnī therefore would have been at least 520. In comparison, the almost complete Munich manuscript includes 475 paintings and twelve likely lost illustrations in the three missing folios, for a total of 487. The almost complete Istanbul Qazvīnī has 459 illustrations for a likely original total of about the same as the Munich codex. The London Qazvīnī was therefore the most richly illustrated manuscript among all the early copies presently known.

Analysis of the Table of Comparison

The Upper Spheres

The first group of illustrations in the Munich and the Istanbul Qazvīnī represents the seven planets according to their classic iconography (Munich fols 10–17; Istanbul fols 9–14 with one folio missing including the illustration of Saturn). The first planet, the 'Moon', is also shown in eclipse, according to a convention also followed in the only surviving page of this section in the Doha Qazvīnī (fol. 5r of the reconstructed manuscript). The only extant painting of this group in the London Qazvīnī represents the planet 'Uṭārid' (cat. 1) whose iconography is quite different from that of the same planet in all the other manuscripts.¹⁶

A complete manuscript would have a group of forty-eight paintings fully illustrating the text dealing with the Fixed Stars and the Constellations of the Zodiac. Three folios with twelve paintings are missing in this section in the Munich Qazvīnī, the only lost pages in the entire manuscript (fols 18–25 include thirty-six constellations). The Istanbul Qazvīnī is incorrectly bound and a few folios are missing, leaving only one folio with the



Figure 5.1 Centaurus, the Centaur (qintawrus), fol. 11v, 102×170 mm; Lupus, the Beast (al-sub'), fol. 11v, 91×170 mm.



Figure 5.2 *The Angels around God (al-karūbiyyūn)*, fol. 13v, 85×163 mm.



Figure 5.3 *The Angels of the First Heaven*, fol. 13v, 65×163 mm.

illustration of seven constellations (fol. 22). In the London Qazvīnī only three folios survive from this section, corresponding to eleven constellations (fols 9–11).

In the following section, which deals with the Angels, it is possible to notice the first significant distinction between the London Qazvīnī and the Munich and Istanbul manuscripts. The group is only partially illustrated in the Munich codex (fols 31–7) and the Istanbul



Figure 5.4 *A Custom of the Persian New Year's Day*, fol. 20v, 85×169 mm.



Figure 5.5 *The Rainbow (qaws qazah)*, fol. 27r, 65×170 mm.

copy is missing three folios, consequently including only the illustrations of the Bearers of the Throne of God and the Archangels (fols 28–9). Only two folios survive in this section in the London Qazvīnī (fols 12–13), therefore the full illustrative programme is unknown; however, the 'Angels around God' (*al-karūbiyyūn*) are here illustrated unlike in the other two codices.

The Months

In the part of the text dealing with the Persian months a few narrative stories relating to each month are told by al-Qazvīnī. The London manuscript distinguishes itself in that two subjects for illustration have been selected out of the many stories (cat. 18–19) whereas in neither the Munich nor the Istanbul codices has space been left for paintings.

The Sphere of Air

In the Sphere of Air, the illustration of the 'Halo' (around the Moon) was omitted only in the London Qazvīnī whereas the 'Rainbow' is depicted in the London, Munich and Istanbul manuscripts. The illustration of the Halo in Istanbul, however, was completed in the Safavid period, although a space was left for it when the manuscript was copied in 1322.

The Sphere of Water

It is in the complex section dealing with the Sphere of Water, in its first part including the Islands of the Seas and the creatures living there, that it becomes clear how the London Qazvīnī displays an individual illustrative programme (fols 29–47). The London codex is illustrated in full in this section (only one folio is missing): this means that virtually all the stories told in the text on the various islands and the strange animals and fish mentioned by al-Qazvīnī are dutifully illustrated. The designer of the codex would have planned to leave an empty space for the painter each and every time a new island or animal is mentioned in the text. Usually a full-width space for illustration was left for each story about the islands whereas a smaller area to either the left or the right of the text was planned, often in alternation, for each animal.

The Munich, Istanbul and Gotha Qazvīnī (this last contains nine folios related to this section of the text) all show a distinctly smaller number of illustrations throughout this part of the text (respectively fols 58–71; 46–56; 6–14). That the number of paintings is smaller also appears obvious if one counts the pages of text: in the heavily illustrated London manuscript seventeen folios (plus one missing) were needed to complete this section whereas the Munich and the Istanbul Qazvīnī needed only fourteen and eleven folios respectively.



Figure 5.6 *The Pirates of the Island of Jāshik*, fol. 37r, 65×167 mm.



Figure 5.7 Collecting Ambergris near the Island of Kandūlawūrī, fol. 37v, 75×170 mm; The Fish That Shakes the Water, fol. 37v, 40×65 mm; The Fish Called 'Asyūr', fol. 37v, 30×90 mm.



Figure 5.8 The Fish Called 'Juwāf', fol. 38r, 40×80 mm; Red Mullet (barāstūj), fol. 38r, 45×70 mm; Shark (kawsaj), fol. 38r, 40×85 mm; The Sea Dragon, fol. 38r, 75×140 mm.



Figure 5.9 The Snake of the Island of Noise, fol. 41r, 45×105 mm; The Island of the Blinded Pygmies, fol. 41r, 60×165 mm.



Figure 5.10 *The Island of the Soft-legged People*, fol. 42r, 85×170 mm.

Apart from some small textual differences between the Munich, Gotha and Istanbul manuscripts and the London Qazvīnī, it is clear that in the former three codices a careful process of selection was carried out in planning the illustrations in this section. Small animals and fish were evidently regarded as unworthy of illustration but also many narrative stories were neglected. In the first few pages of this section a comparison among the four manuscripts shows some differences in the organisation of the spaces for the paintings and in the choice of subjects. However, when they begin to illustrate the section on animals living in the Persian Sea through to those living in the Mediterranean, the rhythm of illustration of the three manuscripts becomes almost identical (Munich fols 65–70, Gotha fols 9–14, Istanbul fols 50–6). This is manifest especially between the Munich and the Gotha Qazvīnī in which the layout of the page (text and position of the illustrations) is often also identical (for example, fols 65 and 9 respectively).

A text on Sea Animals listed in alphabetical order follows the section on the Islands in the Sphere of Water. The alphabetic arrangement is a feature that becomes the rule in the sections on the Vegetable and the Animal Kingdoms. A title in red ink marks the beginning of each new paragraph dealing with a different sea animal, which required an empty space for the illustration.



Figure 5.11 *Catfish (jarri)*, fol. 48v, 40×80 mm; *Lamprey (julkā)*, fol. 48v, 40×85 mm; *Dolphin (dulfīn)*, fol. 48v, 40×80 mm; *The Fish Called 'Dhūbyān'*, fol. 48v, 50×85 mm.



Figure 5.12 Leech (ʿalaq), fol. 51r, 50×90 mm.



Figure 5.13 Hippopotamus (faras al-māʾ), fol. 51v, 70×87 mm.



Figure 5.14 Beaver (qunduz), fol. 52r, 45×85 mm.

The rule is also set from this point in the Munich (fols 72–8) and the Istanbul Qazvīnī (fols 57–62) of a full illustrative programme. In this section, therefore, the London manuscript (with one missing folio) and the Munich and Istanbul codices share the same programme. The Doha Qazvīnī has only one extant illustration in this section, the very last sea animal in the list, the 'Shark' (fol. 18r).

The Sphere of Earth

The Sphere of Earth begins with a text on Mountains followed by Rivers, Springs and Wells. In this geographical section al-Qazvīnī also tells a large number of stories related to the different places, again dealt with in alphabetical order.

The three manuscripts whose folios survive from this part of the



Figure 5.15 *The Sleepers of Mount Raqīm*, fol. 58r, 75×168 mm.

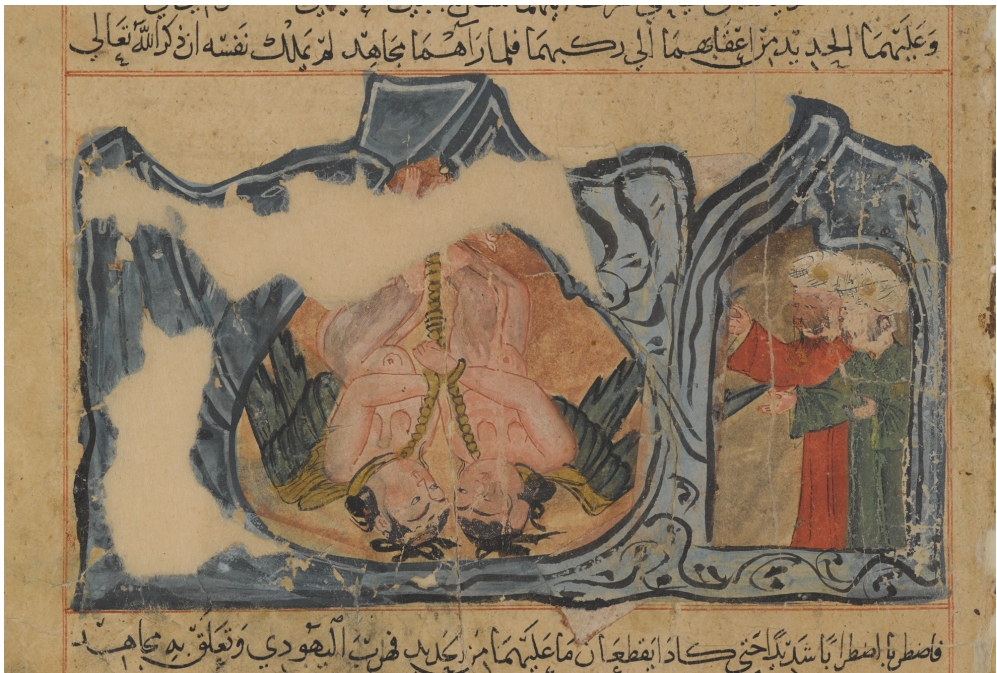


Figure 5.16 *Hārūt and Mārūt in the Well of Babel*, fol. 66r, 102×169 mm.

text (London, Munich and Istanbul) show different preferences in their illustrations. The London Qazvīnī is once again the manuscript with the largest number of illustrations (five altogether, two in the section on the Mountains, and one each in the following three sections) although, like the previous section on the Months and unlike the text on the Islands, it is not illustrated in full.

In the Munich Qazvīnī only two stories have been illustrated, both at the beginning of the Sphere of Earth ('The Images at Mount

Bisutūn', fol. 83r; and 'Amr ibn al-ʿĀs and the River Nile', fol. 92v). The Istanbul codex shows only two generic fish swimming in the River Nile with no attempt to illustrate the narrative of the story of 'Amr ibn al-ʿĀs (fol. 75r).

The Vegetable Kingdom

The Vegetable Kingdom, subdivided into two sections on trees and plants arranged in alphabetical order, is fully illustrated in all five manuscripts. The rule that each tree or plant must be depicted is common to all manuscripts without exception. At this point al-Qazvīnī's text becomes more strictly scientific as it was in the early section on the Constellations and the Sea Animals. The inspiration for the illustrative cycle in al-Qazvīnī's text comes from illustrated herbals such as Dioscorides' *De Materia Medica*, some of which are dated to the thirteenth century.¹⁷

The number of illustrations in the section on the Vegetable Kingdom is the largest of the whole text: the Munich, the Gotha and the Istanbul Qazvīnī preserve all the related folios (respectively, fols 113–44; 39–70; 95–124). Only seven folios survive of this section in the Doha Qazvīnī. Very few differences are noticeable among the four manuscripts. In one case in the Munich copy the text was copied but no space was left for the painting; by contrast, in the Gotha Qazvīnī each plant mentioned in the text is illustrated. It is possible to notice once again that the Munich and the Gotha manuscripts have an identical layout in every single page in this section. The painter of the Istanbul Qazvīnī has missed very few illustrations. The total number of illustrations in this section in the Munich Qazvīnī is 197, in Gotha 198 and in Istanbul 193. Seven pages of the Doha Qazvīnī deal with this part of the text (fols 42–8) with a total of thirty-six paintings. The rule of an illustration for each tree and plant is also followed in this manuscript without exception.



Figure 5.17 Olive (zaytūn), fol. 82v, 95×85 mm.



Figure 5.18 *Lentiscus* (dirw), fol. 84v, 83×73 mm; *Tamarisk* (tarfā'), fol. 84v, 80×65 mm; *Juniper* ('ar'ar), fol. 84v, 84×77 mm.



Figure 5.19 Camphor Tree (kāfūr), fol. 87r, 88×76 mm;
Grape Vine (karm), fol. 87r, 79×65 mm.



Figure 5.20 Manna Plant (hājī), fol. 95r, 58×96 mm; Thyme (hasha'), fol. 95r, 38×99 mm; Cress (hurf), fol. 95r, 30×71 mm; Cardoon or Artichoke (harshaf), fol. 95r, 44×99 mm; Harmel (harmal), fol. 95r, 50×71 mm.



Figure 5.21 Marjoram (marzanjūsh), fol. 98v, 42×74 mm; Nard or Valerian (nārdīn), fol. 98v, 30×90 mm; Anise (nānkhawāh), fol. 98v, 30×90 mm; Narcissus (narjis), fol. 98v, 68×80 mm.

In the London Qazvīnī a number of folios are missing in the middle of the second section on plants (between fols 96 and 97) and at the end (after fol. 98), thus leaving 119 illustrations as compared to the nearly 200 in the other complete manuscripts. The copyist of this manuscript seems to have been somewhat less accurate than his colleagues in this section on trees and plants: he failed to copy the text in ten instances, and the text is present but no space is left for its illustration nine times. Apart from these unexpected but significant incongruities in the London manuscript, one other major difference between this and the other copies is observable: in the text on the 'Lemon Tree' at fol. 89r, a narrative story is illustrated related to the properties of the lemon as an antidote in addition to the expected representation of the Lemon Tree in isolation (cat. 177).¹⁸ The regular rhythm of text and illustration, which is conscientiously maintained in the other four codices, is challenged here by the intrusion of a different type of illustration that does not depict a plant in its isolation.

The jinns

The London Qazvīnī is unique among the manuscripts in illustrating the part of the text describing jinns, which occurs towards the beginning of the last section of the book, on the Animal Kingdom. Thirteen paintings depict various jinns and stories related to their appearance among human beings (fols 99–102).

In the Munich manuscript, there are three empty spaces left for illustration on the first page of this short section on jinns listed by al-Qazvīnī.¹⁹ However, this part of the text has been added later in a different hand and we can assume that illustrations in this section of the Munich manuscript were not originally planned. In the Istanbul Qazvīnī, the text on jinns is present but no miniatures were planned as there are neither illustrations nor spaces left for them.



Figure 5.22 *The Shepherd and the Jinn Who Made a Wolf Free His Sheep*, fol. 102r, 85×87mm.

The animals

The remaining sections on animals, including riding, grazing and wild animals, birds, reptiles and insects, are organised similarly to the text on the Vegetable Kingdom. Consequently, the illustrations in this part of the manuscripts are numerous: 121 in the Munich Qazvīnī (fols 169–206) with only three cases in which the text was copied but not illustrated.²⁰ In the Gotha manuscript, a few folios are missing and the codex comes to an abrupt end at the beginning of the part dealing with the birds. The total number of illustrations is therefore only forty-four (fols 92–108). However, its close relationship with, and dependence on, the Munich Qazvīnī in both its textual and illustrative programme is again fully confirmed. In the Istanbul Qazvīnī one folio is missing at the beginning of the section on the Riding Animals (with consequent loss of Mule and Donkey; fols 145–76) but the total number of illustrations is still the same as in the Munich codex with 121. Eleven pages of the Doha Qazvīnī survive which contain the animal section (fols 66–76) for a total of twenty-two illustrations.

The London manuscript also includes a full illustrative cycle but once again it was planned in a less careful manner (fols 103–31): five entries were not copied at all and five miniatures have been omitted where the text is present. About ten folios have been lost in this part of the text, therefore there are only eighty-nine illustrations compared to the 121 images in the Munich and Istanbul Qazvīnī.

The last part of the Animal Kingdom and of the entire text describes strange animals and peoples, crossbreeds and giants. This last section is fully illustrated in the London (fols 131–5 with one missing folio), Munich (fols 207–12) and Istanbul (fols 178–81) manuscripts. In the Munich manuscript there are thirty illustrations; in one case the text was not copied. In the Istanbul Qazvīnī only twenty-two paintings are found because a portion of the text was not copied (between fols



Figure 5.23 Goat (ma'z), fol. 106r, 75×117 mm.



Figure 5.24 Hare, Rabbit (arnab), fol. 108r, 59×98 mm.



Figure 5.25 Caracal (ʿanaq), fol. 111v, 46×97 mm.



Figure 5.26 Goose (awazz, iwazz), fol. 115r, 56×71 mm.

178 and 179). In the London Qazvīnī there are twenty-five illustrations even though one folio is missing and it is possible once again to notice a distinctive choice of illustrations: on the last page, the two stories of 'The Siamese Twins from Yemen' and 'The Human-headed Rook' (cat. 364–7) have been illustrated with two miniatures each. This remains a peculiarity of the London manuscript since it had happened more than once before, i.e. in the story of the 'Man from Isfahan Rescued by the Giant Bird' (cat. 62–3).²¹



Figure 5.27 Pheasant (tadruj), fol. 116v, 55×84 mm.



Figure 5.28 Bat (khuffash), fol. 118r, 48×75 mm.



Figure 5.29 Rooster (dik), fol. 118v, 84×77 mm.



Figure 5.30 Turtle Dove (qumrī), fol. 124v, 49×90 mm; The Phoenix (qūqīs), fol. 124v, 37×90 mm; Crane (kurkī), fol. 124v, 75×90 mm.



Figure 5.31 Snail (halazūn), fol. 127v, 40×72 mm.



Figure 5.32 Gecko (sāmm abras), fol. 129r, 30×75 mm.



Figure 5.33 The People near Alexander's Wall, fol. 132r, 65×168 mm; The People of Sumatra, fol. 132r, 57×168 mm; The People of Rāmnī, fol. 132r, 57×168 mm.



Figure 5.34 The Giant from Bulghār, fol. 134v, 93×110 mm; The Giant from Mosul, fol. 134v, 98×79 mm.

Interpretation of the Table of Comparison

From the analysis of the comparative table it appears evident that the cycle of illustrations of the London Qazvīnī does not derive from the Munich manuscript, the only earlier known illustrated copy of the *‘Ajā’ib al-makhlūqāt*.

The two manuscripts in Munich and Gotha, on the other hand, are very closely related to one another and it seems likely that the Gotha Qazvīnī is an exact copy of the Munich codex as regards layout of text and illustrations. However, the stylistic execution of the paintings in the two manuscripts differs. The fragmentary Gotha codex deserves a thorough study which would probably reassign its dating closer to its Munich model than has been hitherto suggested.²²

The Istanbul Qazvīnī is close to the Gotha manuscript from the point of view of the style of the illustrations and it shares the same version of the text with both Munich and Gotha. However, it does not have their layout and format and contains a lower number of folios, seemingly representing a less deluxe edition.

The Doha Qazvīnī is an important fragmentary codex since it demonstrates that illustrated copies of the *‘Ajā’ib al-makhlūqāt* had spread westwards, into a Mamluk environment in Syria, just a few decades after al-Qazvīnī’s death. The small number of extant folios makes it less relevant to the purpose of the present chapter. Nonetheless, the general layout of the work, choice of illustrations, dimensions and the number of lines to the page allow it to be linked to the Munich and Gotha pair rather than to the Istanbul or London Qazvīnī.

The minds behind the planning of the layout of the London Qazvīnī were deliberately less discriminating in the choice of subjects to be illustrated than their colleagues of the Munich, Gotha and Istanbul Qazvīnī. The fully illustrated section describing the islands and the animals living in the seas is proof that, when the text allowed it, all subjects were treated in the same way and were worthy of an illustration, including narrative stories which clearly constituted an additional source of inspiration. No other early copy of the *‘Ajā’ib al-makhlūqāt* includes any paintings in the section of the text dealing with the months and the jinns, or the illustration of a story in the scientific section on the vegetable kingdom (‘A Story: The Lemon as an Antidote’). In the geographical part on mountains and rivers, the Munich Qazvīnī includes two narrative illustrations whereas the London manuscript is richer with five illustrated stories in the same section.

A further peculiarity of the London Qazvīnī is that in a few cases²³ there are two different and consecutive illustrations for the same story, thus revealing an interest not only in the story itself but also in its dramatic development.

The manuscript in Munich, which was copied and illustrated when its author was still alive, must be regarded as close to the

format in which al-Qazvīnī himself had conceived his book to appear. The basic concept was that his work, a text on the wonders of creation that summarised the scientific knowledge of his time in order to demonstrate the greatness and overwhelming power of God, also had to be illustrated. The Gotha, Doha and Istanbul codices follow the same, or a very similar, cycle of illustration as the Munich copy. As a general statement, in these codices the 'scientific' nature of the text becomes the principal function of the illustrative cycle: planets, stars, angels, all kinds of animals and vegetables are listed in the text according to their traditional or their alphabetical order, therefore an illustration is provided for each one of them just like in the astronomical books on the fixed stars, herbals and bestiaries.²⁴ Little space, and this carefully selected, was left in the four manuscripts to illustrate more descriptive parts of the text, such as geographical places and travellers' accounts. No space at all was reserved for paintings in the sections dealing with the months of the various calendars and the jinns.

The London Qazvīnī seems instead to be half-way between an illustrated scientific book and a book of fables, travels, stories which help to inspire that sense of wonder and awe that was at the heart of al-Qazvīnī's intent and literary interests. Its cycle of illustrations is indebted therefore not only to scientific treatises but also to illustrated books such as al-Ḥarīrī's *Maqāmāt* and the *Kalīla wa Dimna*,²⁵ geographical texts and travelogues.

Most importantly, the London codex stands in isolation among the five extant early Arabic illustrated manuscripts of the same text. While it is possible to notice a chain of transmission of the illustrated copies beginning from the Munich Qazvīnī through to the Gotha, partially the Istanbul, the Doha, and the later Sarre manuscript and its Deccani copies,²⁶ the same chain clearly does not include the London Qazvīnī. The illustrative cycle of the London manuscript can only be compared, as a fully illustrated codex, to the later translations of the text in Persian and Ottoman Turkish,²⁷ which usually include illustrated sections on the jinns and talismans. Yet, it does not constitute their direct inspiration since a few sections of the text, the general layout of the work, and the dimensions of the pages (consistently smaller in the late manuscripts) are quite different.

It may be surmised that the London Qazvīnī could represent a different version sanctioned at the time al-Qazvīnī was active in the area, paralleling the relationship of the Gotha Qazvīnī to the Munich manuscript. However, the London codex's present splendid isolation suggests more persuasively that its cycle of illustrations was conceived in an original way and was not based on previously established models. Other features support this point of view, such as peculiar iconographic differences (for example, 'The Planet 'Uṭārid', cat. 1; 'The Man from Isfahan Rescued by the Giant Bird', cat. 62–3; the Archangels 'Michael', 'Gabriel' and 'Azrael',

cat. 13–15; and Snakes and Dragons, cat. 38, 90, 92, 332 and 335), all of which have been discussed at length in Chapter 3. It has also been demonstrated that this manuscript did not serve as a model for later copies, thus reinforcing its isolation at both ends of a possible chain of transmission. It cannot be established at the present time whether this was due to the overwhelming success of the Munich copy 'line of diffusion' which obscured other versions and formats, or to a physical isolation of the London Qazvīnī in a library near its place of production for centuries with consequent unavailability as a source for further copies. The manuscript is reported to have been discovered by the dealer who sold it to the British Library in 1983 not far from its purported place of production,²⁸ a fact that may confirm its reclusiveness until recently. When intact, the London codex was the most generously illustrated copy compared to all other related extant manuscripts, which makes it even more surprising that it was not chosen as a model had it been available to artists and calligraphers.

In its splendid isolation, the London Qazvīnī remains a remarkable document for the history of early fourteenth-century Islamic book illustration and the literary history of the text of the *ʿAjāʾib al-makhlūqāt*, still today prompting its readers to enjoy and be amazed at the wonder of its creation.

TABLE OF COMPARISON OF THE MINIATURE CYCLES OF THE LONDON, MUNICH, GOTH, ISTANBUL AND DOHA QAZVĪNĪ MANUSCRIPTS

LONDON	British Library, Or. 14140 (Mosul, c. 1300–10)
MUNICH	Staatsbibliothek, Cod. Ar. 464 (Wasit, 1280)
GOTHA	Forschungsbibliothek, Ms. A 1506 (Fars, c. 1310–20)
ISTANBUL	Süleymaniye Kütüphanesi, Yeni Cami 813 (Fars, 1322)
DOHA	Islamic Art Museum, MSS 647 (Syria, c. 1350)

KEY:

All the numbers refer to the folio number where the illustration is located, followed by 'r' for recto and 'v' for verso.

- MF = Missing Folios: no indication of a possible original presence of illustrations.
 NI = Not Illustrated: the text is present but no space was left for an illustration.
 NC = Not Copied: the text relevant to the subject was not copied therefore both text and illustration are not present.
 E = Empty: the text is present and a space was left for an illustration which has not been executed.
 L = Later: the illustration was executed in an empty space at a later time and is not contemporary with the manuscript.

	LONDON	MUNICH	GOTHA	ISTANBUL	DOHA
Double frontispiece				1v–2r	
THE SUPERLUNAR SPHERE					
<i>The Planets</i>					
Moon	MF	10r	MF	9v	MF
Phases of the Moon	MF	11r	MF	NI	MF
Moon Eclipse	MF	11v	MF	10r	5r
Mercury	8r	13r	MF	11v	MF
Venus	MF	14r	MF	12r	MF
Sun	MF	14v	MF	12v	MF
Mars	MF	16r	MF	14r	MF
Jupiter	MF	16v	MF	14v	MF
Saturn	MF	17r	MF	MF	MF
<i>The Fixed Stars</i>					
Ursa Minor	MF	18v	MF	MF	MF
Ursa Major	MF	19r	MF	MF	MF
Draco	MF	19r	MF	MF	MF

	LONDON	MUNICH	GOTHA	ISTANBUL	DOHA
Cepheus	MF	19v	MF	MF	MF
Bootes	MF	19v	MF	MF	MF
Corona Borealis	MF	21r	MF	MF	MF
Hercules	MF	21r	MF	MF	MF
Lyre	MF	21r	MF	MF	MF
Cygnus	MF	21r	MF	MF	MF
Cassiopeia	MF	21v	MF	MF	MF
Perseus	MF	21v	MF	MF	MF
Auriga	MF	21v	MF	MF	MF
Serpentarius	MF	20r	MF	MF	MF
Sagitta	MF	20r	MF	MF	MF
Aquila	MF	20r	MF	MF	MF
Delphinus	MF	20r	MF	MF	MF
Equuleus	MF	20v	MF	MF	MF
Pegasus	MF	20v	MF	MF	MF
Andromeda	MF	22r	MF	MF	MF
Equus	MF	22r	MF	MF	MF
Triangulus	MF	22r	MF	MF	MF
Aries	MF	22v	MF	MF	MF
Taurus	MF	22v	MF	MF	MF
Gemini	MF	MF	MF	MF	MF
Cancer	MF	MF	MF	MF	MF
Leo	MF	MF	MF	MF	MF
Virgo	MF	MF	MF	MF	MF
Libra	MF	MF	MF	MF	MF
Scorpio	MF	MF	MF	MF	MF
Sagittarius	MF	MF	MF	MF	MF
Capricorn	MF	MF	MF	MF	MF
Aquarius	MF	MF	MF	MF	MF
Pisces	MF	MF	MF	MF	MF
Cetus	MF	MF	MF	MF	MF
Orion	9r	MF	MF	MF	MF
Eridanus, the River	9v	23r	MF	MF	MF
Lepus, the Hare	9v	23r	MF	MF	MF
Canis Major, the Greater Dog	10r	23r	MF	MF	MF
Canis Minor, the Lesser Dog	10r	23v	MF	MF	MF
Argo Navis, the Ship	10v	23v	MF	MF	MF

	LONDON	MUNICH	GOTHA	ISTANBUL	DOHA
Hydra, the Dragon	11r	24r	MF	22r	MF
Crater, the Cup	11r	24r	MF	22r	MF
Corvus, the Raven	11r	24r	MF	22r	MF
Centaurus, the Centaur	11v	24r	MF	22v	MF
Lupus, the Beast	11v	24v	MF	22v	MF
Ara	MF	25r	MF	22v	MF
Corona Australis	MF	25r	MF	22v	MF
Piscis Austrinus	MF	25r	MF	22v	MF
<i>The Angels</i>					
Bearers of the Throne of God	MF	31v	MF	28v	MF
Rūḥ	MF	32r	MF	28v	MF
Israfil	MF	32v	MF	29r	MF
Gabriel	12r	33r	MF	29v	MF
Michael	12r	33v	MF	29v	MF
Azrael	13r	34r	MF	MF	MF
Angels around God	13v	NI	MF	MF	MF
Angels of the First Heaven	13v	34v	MF	MF	MF
Angels of the Second Heaven	MF	35r	MF	MF	MF
Angels of the Third Heaven	MF	35r	MF	MF	MF
Angels of the Fourth Heaven	MF	35r	MF	MF	MF
Angels of the Fifth Heaven	MF	35v	MF	MF	MF
Angels of the Sixth Heaven	MF	35v	MF	MF	MF
Angels of the Seventh Heaven	MF	35v	MF	MF	MF
Recording Angels	MF	36r	MF	MF	MF
Hārūt and Mārūt	MF	37r	MF	MF	MF
<i>The Months</i>					
Custom of the Persian New Year's Day	20v	NI	MF	NI	MF

	LONDON	MUNICH	GOTHA	ISTANBUL	DOHA
Firūz Makes It Rain	22r	NI	MF	NI	MF
THE SPHERE OF AIR					
Winds	NI	NI	MF	E	MF
Moon's Halo	NI	55v	MF	L	MF
Rainbow	27r	56r	MF	43v	MF
THE SPHERE OF WATER					
Map of the World		58r		L	MF
<i>The Chinese Sea</i>					
Tree Dwellers of Sumatra	29v	NI	NI	NI	MF
Winged Cat of Sumatra	30r	58v	6v	46v	MF
Wild Antelope of Sumatra	30r	59r	7r	46v	MF
Civet Cat of Sumatra	30r	59r	7r	46v	MF
Musk Rat	NI	59r	NI	NI	MF
Snakes of Sumatra	30r	59r	7r	NI	MF
Monkeys of Sumatra	30r	59r	NI	46v	MF
Parrots of Sumatra	30v	NI	NI	NI	MF
Winged People of Sumatra	30v	NI	7r	46v	MF
Camphor Tree of Sumatra	30v	NI	NI	NI	MF
Tree Dwellers of Ramnī	31r	59v	7v	47r	MF
Tree Dwellers of Ramnī	NI	59v	NI	NI	MF
Rhinoceros of Ramnī	31r	NI	7v	47r	MF
Buffaloes of Ramnī	31v	NI	NI	NI	MF
Falcons of Korea	31v	NI	NI	NI	MF
Archipelago of Wāq Wāq	32r	NI	MF	NI	MF
Queen of Wāq Wāq	NI	60r	MF	NI	MF

	LONDON	MUNICH	GOTHA	ISTANBUL	DOHA
Tree of Wāq Wāq	NI	NI	MF	47v	MF
Salahi Island	NI	NI	MF	47v	MF
People of Nias	32r	NI	MF	NI	MF
Giants of Nias	32v	NI	MF	47v	MF
Lion-headed People of Aṭwarān	32v	NI	MF	47v	MF
Unidentified Bird	MF	60v	MF	48v	MF
Multi-headed Monster	MF	NI	MF	NI	MF
Fish Called 'Sayalān'	33r	NI	MF	NI	MF
Dugong	33r	NI	MF	NI	MF
Species of Crab	33r	NI	MF	NI	MF
Giant Snakes	33r	61r	MF	48r	MF
<i>The Indian Ocean</i>					
Long-haired People of Bartā'iyl	34r	NI	MF	NI	MF
Dog-headed People of the Island of the Castle	34v	62r	MF	49v	MF
Chest-faced People of Jāba	35r	62v	MF	MF	MF
Alexander on the Island of the Dragon	35r	63r	MF	MF	MF
Animal Called 'Mi'rāj' on the Island of the Dragon	35v	63r	MF	MF	MF
Human-headed Fish	35v	63r	MF	MF	MF
Fish Swimming on the Surface of the Sea	35v	NI	MF	MF	MF
Fish Able to Set Fire	35v	NI	MF	MF	MF
Flying Fish	35v	NI	MF	MF	MF
Unidentified Fish	35v	NI	MF	MF	MF
Fish Providing Invisible Ink	36r	NI	MF	MF	MF

	LONDON	MUNICH	GOTHA	ISTANBUL	DOHA
Snake-headed Fish	36r	NI	MF	MF	MF
Circular Fish Called 'Gāw-Māhī'	36r	NI	MF	MF	MF
<i>The Persian Sea</i>					
Pirates of Jāshik	37r	NI	NI	MF	MF
Collecting Ambergris near Kandulāwuri	37v	NI	NI	MF	MF
Fish that Shakes the Water	37v	NI	NI	MF	MF
Fish Called 'Asyūr'	37v	NI	NI	MF	MF
Fish Called 'Juwāf'	38r	NI	NI	MF	MF
Red Mullet	38r	NI	NI	MF	MF
Shark	38r	64v	NI	MF	MF
Sea Dragon	38r	65r	9r	50r	MF
Fish with a Proboscis	38v	65r	9r	50r	MF
Circular Fish with a Sting	38v	65r	9r	50r	MF
Giant Bird on a Tree	39r	NI	NI	NI	MF
Giant Bird Carrying the Man from Isfahan	NI	65v	9v	50v	MF
Village reached by the Man from Isfahan	39r	NI	NI	NI	MF
<i>The Red Sea</i>					
Island of the Informing Animal Called 'Jassāsa'	40r	NI	NI	NI	MF
Fish that Capsizes the Ships	NI	66v	10v	51v	MF
Fish Providing Mother-of-pearl	40v	NI	NI	NI	MF
Fish Turning into Cotton	40v	66v	10v	51v	MF
Owl Fish	NC	NI	NI	51v	MF

	LONDON	MUNICH	GOTHA	ISTANBUL	DOHA
Cow Fish	40v	NC	NC	NI	MF
<i>The Sea of Zanj</i>					
Snake of the Island of Noise	41r	NI	NI	NI	MF
Island of the Blinded Pygmies	41r	NI	NC	NI	MF
Island of the Dog-headed People	41v	67v	11v	52v	MF
Island of the Soft-legged People	42r	67v	11v	52v	MF
Sawfish	42r	68r	12r	53r	MF
Whale	42v	68v	12v	53v	MF
<i>The Western Sea</i>					
Island of the Talismanic Statue on the Tower	43r	NI	NI	NI	MF
Island of the Sleep-inducing Trees and Flowers	43v	NI	NI	NI	MF
Island of the Church of the Crow	43v	NI	NI	NI	MF
Sheep of Jālīṭa	44r	NI	NI	NI	MF
Island of the Monastery	44r	NI	NI	NI	MF
Sea Animal Clinging to the Rock	44v	NI	NI	NI	MF
The Animal Called 'Mārūz'	NI	NI	NI	54v	MF
Fish Called the 'Old Jew'	44v	69v	13v	54v	MF
Mule Fish	45r	70r	14r	55r	MF
Flounder	45r	70r	14r	55r	MF
Cuttlefish or Squid	NI	70v	14v	55r	MF
Fish that Keeps Moving when Cooked	45v	NI	14v	NI	MF
Swallow Fish	45v	70v	14v	55v	MF

	LONDON	MUNICH	GOTHA	ISTANBUL	DOHA
Fish as Large as a Minaret	45v	NI	NI	55v	MF
Fish that Survives on Land	45v	NI	NI	NI	MF
<i>The Caspian Sea</i>					
Island of the Snakes	46r	NI	MF	NI	MF
Island of the Sheep	46v	NI	MF	NI	MF
Girl inside the Body of a Large Fish	46v	NI	MF	NI	MF
Sea Dragon	47r	71v	MF	56r	MF
Dream of Khusraw Anūshirvān	NI	71v	MF	56v	MF
<i>Sea Animals</i>					
Sea Hare	47v	72r	MF	57r	MF
Waterman	MF	72v	MF	57r	MF
Sea Cow	MF	72v	MF	57r	MF
Crocodile	MF	73r	MF	57v	MF
Sea Dragon	48r	73v	MF	58r	MF
Catfish	48r	NI	MF	NI	MF
Lamprey	48v	74r	MF	58v	MF
Dolphin	48v	74r	MF	58v	MF
Fish Called 'Dhubyān'	48v	74r	MF	58v	MF
Torpedo	49r	74r	MF	58v	MF
Pilot Fish	49r	74v	MF	59r	MF
Fish Found near Jerusalem	NC	74v	MF	59r	MF
Crab	49r	74v	MF	59r	MF
Lobster	49v	75r	MF	59v	MF
Skink	49v	75r	MF	59v	MF
Tortoise or Turtle	50r	NI	MF	60r	MF
Tortoise or Turtle	50r	75v	MF	NI	MF
Unidentified Fish	50r	NI	MF	NI	MF
Carp	50v	76r	MF	60v	MF
Ray or Skate	50v	76r	MF	60v	MF
Anchovy	50v	NI	MF	60v	MF
Frog	50v	76r	MF	60v	MF

	LONDON	MUNICH	GOTHA	ISTANBUL	DOHA
Leech	51r	76v	MF	61r	MF
Species of Turtle	51v	77r	MF	61r	MF
Hippopotamus	51v	77r	MF	61v	MF
Unidentified Cetacean	NI	77v	MF	61v	MF
Unidentified Cetacean	52r	77v	MF	62r	MF
Beaver	52r	78r	MF	62r	MF
Sea Urchin	52r	78r	MF	62r	MF
Narwhal	52v	78r	MF	62v	MF
Otter	52v	78v	MF	62v	MF
Shark	52v	78v	MF	62v	11r
THE SPHERE OF EARTH					
<i>Mountains</i>					
Images of Mount Bisutūn	56r	83r	MF	MF	MF
Sleepers of Mount Raqīm	58r	NI	MF	NI	MF
<i>Rivers</i>					
'Amr ibn al-ʿĀs and the Nile	62v	92v	MF	NI	MF
Fish Swimming in the Nile	NI	NI	MF	75r	MF
<i>Springs</i>					
Dancers and Musicians at Īlābistān	63v	NI	MF	NI	MF
<i>Wells</i>					
Hārūt and Mārūt in Babel	66r	NI	MF	NI	MF
<i>The Vegetable Kingdom: Trees</i>					
Ebony	77v	114r	40r	95v	MF
Myrtle	77v	113v	39v	95v	MF
Citron	78r	114r	40r	96r	MF
Plum	78r	114v	40v	96r	MF
Melia Tree	78r	114v	40v	96v	MF
Gum Arabic Tree	78v	114v	40v	96v	MF
Moringa	78v	115r	41r	96v	MF
Turpentine Tree	78v	115r	41r	96v	MF
Balsam Tree	79r	115r	41r	97r	MF
Oak	79r	115v	41v	97r	MF
Apple	79r	115v	41v	97r	MF

	LONDON	MUNICH	GOTHA	ISTANBUL	DOHA
Spruce	79v	115v	41v	97v	MF
Mulberry	79v	116r	42r	97v	MF
Fig	80r	116r	42r	97v	MF
Sycamore Fig	80r	116v	42v	98r	MF
Walnut	80v	116v	42v	98r	MF
Tree Called 'Khusraw Dār'	80v	117r	43r	98v	MF
Castor Oil Plant	80v	NI	43r	98v	MF
Willow	81r	117r	43r	98v	MF
Peach	81r	117r	43r	98v	MF
Spiny Cytisus	81r	117v	43v	99r	MF
Elm	81v	117v	43v	99r	MF
Plane	81v	117v	43v	99r	MF
Laurel	81v	118r	44r	99v	MF
Pomegranate	82r	118r	44r	99v	MF
Olive	82v	118v	44v	100r	MF
Cypress	83r	119r	45r	100v	MF
Quince	83r	119r	45r	100v	MF
Sumac	83v	119v	45v	101r	MF
Sumra Tree	NC	119v	45v	101r	MF
Sandarach	83v	119v	45v	101r	MF
Tree Called 'Shabāb'	83v	120r	46r	101r	MF
Chestnut	84r	120r	46r	101v	MF
Sandalwood	84r	120r	46r	101v	MF
Pine	84r	120r	46r	101v	MF
Lentiscus	84v	120v	46v	101v	MF
Tamarisk	84v	120v	46v	102r	MF
Juniper	84v	120v	46v	102r	MF
Mudar Plant	85r	121r	47r	102r	MF
Gall Oak	85r	121r	47r	102r	MF
Jujube	85r	121r	47r	102v	42r
Aloe	NC	121v	47v	102v	42r
Service Tree	85v	121v	47v	102v	42r
Poplar	85v	121v	47v	102v	42v
Peony	NI	121v	47v	103r	42v
Pistachio	85v	122r	48r	103r	42v
Pepper Tree	86r	122r	48r	103r	MF
Hazelnut	86r	122r	48r	103v	MF
Lycium	86v	122v	48v	103v	MF
Clove	86v	122v	48v	103v	MF
Reed	86v	122v	48v	104r	MF

	LONDON	MUNICH	GOTHA	ISTANBUL	DOHA
Camphor Tree	87r	123r	49r	104r	MF
Grape Vine	87r	123r	49r	104r	MF
Pear	88r	124r	50r	105r	43r
Euphorbia	NI	124r	50r	105r	43r
Frankincense Tree	88r	124r	50r	105v	43v
Almond	88v	124v	50v	105v	43v
Lemon	88v	124v	50v	105v	44r
Lemon as an Antidote	89r	NI	NI	NI	NI
Apricot	89r	125r	51r	106r	44v
Banana Tree	89v	125r	51r	106v	44v
Orange	89v	125v	51v	106v	45r
Coconut Palm	89v	125v	51v	106v	45r
Syrian Christ-thorn	90r	125v	51v	106v	45r
Date Palm	90r	126r	52r	107r	45v
Rose	90v	126v	52v	107r	MF
Jasmine	90v	126v	52v	107r	MF
<i>The Vegetable Kingdom: Plants</i>					
Pimpernel	91r	127r	53r	108r	MF
Calendula	91v	127v	53v	108r	MF
Lemongrass	91v	127v	53v	108v	MF
Rice	91v	127v	53v	108v	MF
Spinach	91v	127v	53v	108v	MF
Squill	91v	127v	53v	108v	MF
Thistle	92r	128r	54r	108v	MF
Ashras	NC	128r	54r	108v	MF
Soda Plant	92r	128r	54r	108v	MF
Absinth	92r	128r	54r	109r	MF
Chrysanthemum	92r	128r	54r	109r	MF
Flax	92r	128v	54v	109r	MF
Camomile	NI	128v	54v	109r	MF
Plant Called 'Bādhaward'	NC	128v	54v	109v	MF
Balm	92v	128v	54v	109v	MF
Basil or Mountain Balm	92v	128v	54v	109v	MF
Aubergine	92v	128v	55r	109v	MF
Fava Bean	92v	129r	55r	109v	MF
Maidenhair Fern	93r	129r	55r	110r	MF
Mugwort	93r	129r	55r	110r	MF

	LONDON	MUNICH	GOTHA	ISTANBUL	DOHA
Onion	93r	129r	55v	110r	MF
Melon	93v	129v	55v	110v	MF
Bulbus or White Onion	NC	130r	56r	110v	MF
Violet	93v	130r	56r	110v	MF
Aconite's Antidote	NI	130r	56r	111r	MF
Adonis	94r	130r	56r	111r	MF
Aconite	94r	130r	56r	111r	MF
Lupine	94r	130v	56v	111r	MF
Garlic	94r	130v	56v	111r	MF
Millet	94v	130v	56v	111v	MF
Rocket	94v	131r	57r	111v	MF
Carrot	94v	131r	57r	111v	MF
Manna Plant	95r	131r	57r	112r	MF
Thyme	95r	131r	57r	112r	MF
Cress	95r	131r	57r	112r	MF
Cardoon or Artichoke	95r	131v	57v	112r	MF
Harmel	95r	131v	57v	112r	MF
Caltrops	95v	131v	57v	112r	MF
Fenugreek	95v	131v	57v	112v	MF
Chickpea	95v	131v	57v	112v	MF
Melilot	95v	132r	58r	112v	MF
Colocynth	96r	132r	58r	112v	MF
Wheat	96r	132r	58r	113r	MF
Plant Called 'Hāyy al-'ālam'	NC	132v	58v	113r	MF
Plant Called 'Khāniq al-namr'	NC	132v	58v	113r	MF
Mallow	96r	132v	58v	113r	MF
Hellebore	96v	132v	58v	113v	MF
Mustard	96v	133r	59r	113v	MF
Lettuce	96v	133r	59r	113v	MF
Poppy	MF	133v	59v	114r	MF
Fox's Testicle	MF	133v	59v	114r	46r
Dog's Testicle	MF	133v	59v	114r	46r
Althea	MF	133v	59v	114r	46r
Borage	MF	133v	59v	114r	46r
Cucumber	MF	134r	60r	114v	46v
Plant Called 'Khayrī'	MF	134r	60r	114v	46v
Donkey's Gall	MF	134r	60r	114v	46v

	LONDON	MUNICH	GOTHA	ISTANBUL	DOHA
Fenugreek	MF	134v	60v	115r	MF
Sorrel	MF	134v	60v	115r	MF
Sweet Basil	MF	134v	60v	115r	MF
Saffron	MF	135r	61r	115v	MF
Indian Spikenard	MF	135r	61r	115v	MF
Rue	MF	135r	61r	115v	MF
Turnip	MF	135v	61v	116r	MF
Sesame	MF	135v	61v	116r	MF
Hyacinth	MF	135v	61v	116r	MF
Lily or Iris	MF	135v	61v	116r	MF
Watermint	MF	135r	62r	116v	MF
Earthsmoke	MF	136r	62r	116v	MF
Dill	MF	136r	62r	116v	MF
Sea Lettuce	MF	136v	62v	116v	MF
Tree of Mary	MF	136v	62v	116v	MF
Barley	MF	136v	62v	117r	MF
Tulip	MF	136v	62v	117r	MF
Turnip	MF	137r	63r	117r	MF
Donkey's Lettuce	MF	137r	63r	117v	MF
Hemlock	MF	137r	63r	117v	MF
Sweet Clover	MF	137r	63r	117v	MF
Wormweed of Pontus	MF	137v	63v	117v	MF
Tares or Darnel	MF	137v	63v	117v	MF
Savory Thyme	MF	137v	63v	118r	MF
Tarragon	MF	137v	63v	118r	MF
Plant Called 'Abaythuran'	MF	137v	63v	118r	MF
Lentil	MF	138r	64r	118r	MF
Indigo Plant	MF	138r	64r	118r	MF
Nightshade	MF	138r	64r	118v	MF
Radish	MF	138r	64r	118v	MF
Fool's Cabbage	MF	138v	64v	119r	MF
Cinquefoil	MF	138v	64v	119r	MF
Mint	MF	138v	64v	119r	MF
Wolf's Bane	MF	139r	65r	119r	MF
Dog's Bane	MF	139r	65r	119v	MF
Tragacanth	MF	139r	65r	119v	MF
Trefoil	MF	139r	65r	119v	MF
Safflower	MF	139v	65v	119v	MF
Cotton	MF	139v	65v	120r	MF

	LONDON	MUNICH	GOTHA	ISTANBUL	DOHA
Leadwort	MF	139v	65v	120r	MF
Hemp	MF	139v	65v	120r	MF
Cauliflower	MF	139v	66r	120r	MF
Pole Root	MF	140r	66r	120v	MF
Ox's Tongue	MF	140r	66r	120v	MF
Flax	MF	140r	66r	120v	MF
Leek	MF	140r	66r	120v	MF
Species of Pulse	MF	140v	66v	120v	MF
Celery or Parsley	MF	140v	66v	121r	MF
Caraway	97r	140v	66v	121r	MF
Coriander	97r	140v	66v	121r	MF
Flea Expeller	NI	141r	67r	121r	MF
Cumin	97r	141r	67r	121r	MF
Plant Called 'Küz-kundur'	NC	141r	67r	121v	MF
Truffle	NI	141r	67r	121v	MF
Ivy or Lablab	97v	141v	67v	121v	MF
Plantago	97v	141v	67v	121v	MF
Sparrow's Tongue	NI	141v	67v	121v	MF
Caper	97v	141v	67v	122r	MF
Mandrake	97v	141v	67v	122r	MF
Lubia Bean	98r	142r	68r	122r	MF
Luf	NC	142r	68r	122r	MF
Water Lily	98r	142r	68r	122r	MF
Mung Bean	NI	142r	68r	122v	MF
Mezereon	NI	142r	68r	122v	MF
Plant Called 'Mahudhāna'	NC	142v	68v	122v	47r
Mullein	98r	142v	68v	122v	47r
Marjoram	98v	142v	68v	123r	47r
Nard or Valerian	98v	142v	68v	123r	47v
Anise	98v	143r	69r	123r	47v
Narcissus	98v	143r	69r	123r	47v
Wild Rose	MF	143r	69r	123v	48r
Mint	MF	143r	69r	123v	48r
Asparagus	MF	143v	69v	123v	48r
Endive	MF	143v	69v	123v	48v
Wars	MF	143v	69v	124r	48v
Gourd	MF	144r	70r	124r	48v

	LONDON	MUNICH	GOTHA	ISTANBUL	DOHA
<i>The Animal Kingdom: Jinns</i>					
Jinn Named Dhillhāth	99r	E	MF	NI	MF
Jinn Named Shiqq	99r	E	MF	NI	MF
Iblis	99v	E	MF	NI	MF
King Solomon and His Jinns	100r	NI	MF	NI	MF
King Solomon and His Jinns	100v	NI	MF	NI	MF
Two Jinns of King Solomon	100v	NI	MF	NI	MF
Jinn Looking like a Dog	101r	NI	MF	NI	MF
Jinn Looking like an Ape	101r	NI	MF	NI	MF
Man and Camel and Serpent Jinn	101v	NI	MF	NI	MF
Man and Girl Kidnapped by a Jinn	101v	NI	MF	NI	MF
Man and Girl Kidnapped by a Jinn	102r	NI	MF	NI	MF
Shepherd and Jinn that Made a Wolf Flee	102r	NI	MF	NI	MF
Singer Ibrahim and Jinn Disguised as an Old Man	102v	NI	MF	NI	MF
<i>The Animal Kingdom: Mounts</i>					
Horse	103r	169r	92r	145v	66v
Mule	103v	169v	92v	MF	67r
Donkey	104r	170r	93r	MF	67v
Onager	104r	170v	93v	146r	68v
<i>The Animal Kingdom: Grazing Animals</i>					
Dromedary Camel	105r	171v	94v	147r	MF
Cow	105v	172r	95r	147v	69r
Wild Cow	MF	173r	96r	148r	MF
Buffalo	MF	173v	96v	148v	MF
Giraffe	MF	173v	96v	148v	MF
Sheep	MF	174r	97r	149r	MF
Goat	106r	174v	97v	149v	MF

	LONDON	MUNICH	GOTHA	ISTANBUL	DOHA
Gazelle	106v	175r	98r	149v	MF
Steinbock	107r	175r	98r	150r	MF
<i>The Animal Kingdom: Wild Animals</i>					
Jackal	107v	176r	99r	150v	MF
Weasel	107v	176r	99r	150v	MF
Hare, Rabbit	108r	176v	99v	151r	70r
Lion	108v	177r	100r	151v	70v
Tiger	MF	177v	100v	152r	MF
Fox	MF	178r	101r	152v	MF
Unicorn	109r	178v	101v	152v	MF
Wild Boar	109r	178v	101v	153r	MF
Bear	109v	179r	102r	153v	MF
Common Marten	110r	179v	102v	154r	71r
Wolf	110r	180r	MF	154r	71v
Animal Called 'Sinad'	110v	180v	MF	154v	MF
Ermine	MF	180v	MF	155r	MF
Cat	MF	181r	MF	155r	MF
Cat of the Land	MF	181r	MF	155r	MF
Siranis	MF	181v	MF	155v	MF
Animal Called 'Shāh-dawār'	MF	181v	MF	155v	MF
Hyena	111r	182r	103r	156r	MF
Caracal	111v	182v	103v	156r	MF
Gazelle	NC	182v	103v	156v	MF
Polecat	NI	182v	103v	156v	MF
Cheetah	111v	182v	103v	156v	MF
Elephant	MF	183r	104r	157r	MF
Monkey	MF	183v	104v	157v	MF
Rhinoceros	112r	184r	105r	157v	MF
Dog	113r	184v	105v	158v	72r
Leopard	113v	185v	106v	159r	73r
Roe Deer or Stag	NI	185v	106v	159r	73v
<i>The Animal Kingdom: Birds</i>					
Bishop Bird or Finch	114r	186r	107r	159v	MF
Nightingale	114r	186r	107r	159v	MF
Goose	115r	186v	107v	160r	MF
Goshawk	115r	186v	107v	160r	MF
Sparrow Hawk	115v	187r	108r	160v	MF
Parrot	115v	187r	108r	160v	MF

	LONDON	MUNICH	GOTHA	ISTANBUL	DOHA
Bulbul	116r	187r	108r	160v	MF
Owl	116r	187v	108v	161r	MF
Pheasant	116v	187v	108v	161r	MF
Weaverbird	NI	187v	108v	161r	MF
Snake Eater	NC	188r	MF	161r	74r
Houbara Bustard	116v	188r	MF	161v	74r
Kite	117r	188r	MF	161v	74v
Pigeon	117r	188v	MF	162r	MF
Swallow	117v	NI	MF	162r	MF
Bat	118r	E	MF	162v	MF
Francolin	118v	E	MF	162v	MF
Rooster	118v	E	MF	163r	MF
Hen	119r	190r	MF	163r	MF
Egyptian Vulture	119v	190v	MF	163v	MF
Rook	119v	190v	MF	163v	MF
Starling	120r	191r	MF	164r	MF
Goshawk	120r	191r	MF	164r	MF
Quail	120r	191r	MF	164r	MF
Gerfalcon	120v	191r	MF	164r	MF
Peregrine Falcon	120v	191r	MF	164v	MF
Turtle Dove	120v	191v	MF	164v	MF
Green Woodpecker	120v	191v	MF	164v	MF
Golden Oriole	121r	191v	MF	164v	MF
Saker Falcon	121r	191v	MF	164v	MF
Sea Bird	NC	191v	MF	165r	MF
Peacock	121r	192r	MF	165r	MF
Grouse	121v	192r	MF	165r	MF
Sparrow	121v	192r	MF	165r	MF
Eagle	122r	192v	MF	165v	MF
Magpie	122v	193r	MF	166r	MF
Bird Called 'Anqa'	122v	193r	MF	166r	MF
Crow	123r	193v	MF	166v	MF
Crane	123v	194r	MF	167r	75r
Grebe or Diver Bird	123v	194r	MF	167r	75r
Collared Turtle Dove	123v	194r	MF	167r	75v
Partridge	124r	194v	MF	167v	75v
Crested Lark	124r	194v	MF	167v	75v
Sandgrouse	124r	194v	MF	167v	MF

	LONDON	MUNICH	GOTHA	ISTANBUL	DOHA
Turtle Dove	124v	195r	MF	168r	MF
Phoenix	124v	195r	MF	168r	MF
Crane	124v	195r	MF	168r	MF
Curlew	125r	195v	MF	168r	MF
White Stork	125r	195v	MF	168v	MF
Heron	125r	195v	MF	168v	MF
Hoopoe Lark	125r	195v	MF	168v	MF
Vulture	125v	196r	MF	168v	MF
Ostrich	125v	196r	MF	169r	MF
Hoopoe	126r	196v	MF	169v	MF
Martin	126v	197r	MF	169v	MF
Firefly	NI	197r	MF	169v	MF
Wild Pigeon	NC	197r	MF	169v	MF
<i>The Animal Kingdom: Reptiles and Insects</i>					
Viper	MF	198r	MF	177v	MF
Dragon	127r	198v	MF	MF	MF
Locust	NI	199r	MF	MF	MF
Chameleon	127v	199r	MF	MF	76r
Fire Ant	NI	NI	MF	170r	NI
Snail	127v	199v	MF	170r	76r
Snake	128r	NI	MF	NI	MF
Earthworms	128v	200r	MF	170v	MF
Dungbeetle	MF	200v	MF	170v	MF
Silkworm	MF	200v	MF	171r	MF
Dik al-jinn	MF	200v	MF	171r	MF
Fly	MF	201r	MF	171r	MF
Spanish Fly	MF	NI	MF	171v	MF
Tarantula	MF	NI	MF	171v	MF
Hornet	MF	NI	MF	171v	MF
Gecko	129r	201v	MF	171v	MF
Tortoise or Turtle	129r	201v	MF	172r	MF
Cockroach	NI	NI	MF	172r	MF
Animal Called 'Ṣannāja'	129v	202r	MF	172r	MF
Lizard	MF	202v	MF	172v	MF
Animal Called 'Zarbān'	MF	202v	MF	172v	MF
Ocellated Skink	MF	203r	MF	173r	MF
Scorpion	MF	203r	MF	173r	MF
Spider	MF	NI	MF	173r	MF
Mouse	130r	204r	MF	174r	MF
Mole Rat	130v	204r	MF	174r	MF

	LONDON	MUNICH	GOTHA	ISTANBUL	DOHA
Musk Rat	130v	204v	MF	174r	MF
Belted Mouse	NI	204v	MF	174r	MF
Aconite's Mouse	NI	NI	MF	174r	
Gerbil	MF	204v	MF	174v	MF
Salamander	MF	205r	MF	174v	MF
Porcupine or Hedgehog	MF	205v	MF	175r	MF
Tick	MF	206r	MF	175v	MF
Bee	MF	206r	MF	175v	MF
Monitor Lizard	131r	207r	MF	176v	MF
<i>The Animal Kingdom: Strange Animals</i>					
People of Gog and Magog	131v	207v	MF	178r	MF
'Munsuk' People	131v	207v	MF	178r	MF
People near Iskandar's Wall	132r	207v	MF	178r	MF
People of Sumatra	132r	211r	MF	178r	MF
People of Ramnī	132r	211r	MF	178v	MF
Blind People of Zānj	132v	211r	MF	178v	MF
Sagsar People of Zānj	132v	211v	MF	178v	MF
Soft-legged People of Zānj	132v	211v	MF	MF	MF
Elephant-like People	133r	211v	MF	MF	MF
Horse-like People	133r	208r	MF	MF	MF
People with Two Faces	133r	208r	MF	MF	MF
People with Multiple Legs	133v	208r	MF	MF	MF
Female People	133v	NC	MF	MF	MF
Human-headed Snakes	133v	208v	MF	MF	MF
People with Their Faces on the Chest	133v	208v	MF	MF	MF
Single-legged People	MF	208v	MF	179r	MF
Human-headed Horned Tortoises	MF	208v	MF	179r	MF
Giraffe	MF	209r	MF	179r	MF

	LONDON	MUNICH	GOTHA	ISTANBUL	DOHA
Cross between Horse and Onager	MF	209r	MF	179r	MF
Cross between Camel and Bukhti	MF	209r	MF	179v	MF
Cross between Man and Bear	MF	209v	MF	179v	MF
Cross between Wolf and Hyena	MF	209v	MF	179v	MF
Cross between Dog and Wolf	134r	209v	MF	179v	MF
Cross between Pigeon and Ring Dove	134r	209v	MF	179v	MF
Giant 'Üj ibn 'Anaq	134r	210r	MF	180r	MF
Giant from Bulghār	134v	210v	MF	180v	MF
Giant from Mosul	134v	210v	MF	180v	MF
Siamese Twins from Yemen	135r	212r	MF	181r	MF
The Living Part of the Siamese Twins	135r	NI	MF	NI	MF
Human-headed Rook	135r	212r	MF	181r	MF
Human-headed Rook Speaking to the Caliph	135v	NI	MF	NI	MF
Two-headed Creature	NC	212v	MF	181r	MF
Winged Fox	135v	212v	MF	181r	MF
Horned Horse	135v	212r	MF	181v	MF

Notes

1. The earliest illustrated copy in Persian is purported to be a manuscript that was with the London-based art dealer Sam Fogg in 2000 and is now possibly in the collection of the late Shaykh Sa'ud al-Thani in Doha (tentatively attributed to the late fourteenth century in Tabriz, Iran). Copies written in Persian became more popular than those in

Arabic from the fifteenth century onwards; their textual and illustrative history is beyond the scope of this book.

2. See Aumer 1866: no. 464. The manuscript was the subject of an unpublished thesis: Graf von Bothmer 1971. Many miniatures from this celebrated codex have been published. See, for example, Saxl 1912: pls 1–4, 7–8, Schulz 1914, II: pls 12–13, Arnold and Grohmann 1929: pl. 35, Ettinghausen 1962: 138–9, Badiée 1978a: pls 5–6 and recently Berlekamp 2011: front cover, figs 1, 11, 14, 17–18, 22, 27, 38, 52 and 94. See also Rebhan 2010. The entire manuscript is available in digital format at <<http://daten.digital-sammlungen.de/~db/0004/bsb00045957/images/index.html>> (last accessed 8 January 2015).
3. According to de Ruiter (1985: 37) al-Qazvīnī revised the first version of the *'Ajā'ib al-makhlūqāt* towards the end of his life, and the second original version is represented by the Munich Qazvīnī. See also note 1 in the Description by Folio, Part Two. The first version of the other work for which the author is known, a geographical work, had the original title of *'Ajā'ib al-buldān* ('The Wonders of the Countries', written c. 661/1262–3) which was changed in c. 674/1275–6 to *Āthār al-bilād wa akhbār al-'ibād* ('Monuments of the Countries and the History of the Inhabitants'); see also note 14. Syrinx von Hees has devoted much attention to al-Qazvīnī's text in recent times: von Hees 2002, 2005, 2006 and 2008.
4. Another manuscript that might have been expected to be examined in this chapter is a codex that is now widely believed to be a later, sixteenth- or even seventeenth-century, copy shared between the Public Library in New York (Spencer Collection, ms. 45) and the Freer Gallery in Washington, DC (nos 54.33–114 and 57.13). It is known as the Sarre Qazvīnī after its former owner. Julie Badiée wrote her doctoral thesis on this manuscript, and she suggested in a later article an early fifteenth-century date and Diyarbakr as the possible place of production (Badiée 1978 and 1984). Barbara Schmitz suggested a c. 1640 dating for it in the most recent study of this manuscript (1992: 7–13). Reproductions of illustrations are in Pope and Ackermann 1938–9, V: pl. 853, Schulz 1914: pl. 13, Kühnel 1923: pls 33–4, Arnold 1928: pl. XVI, Ettinghausen 1962: 178, Atıl 1975: pls 55–70, Carboni 1995: figs 11 and 13, and Schmitz 1992: figs 1–13. The Sarre Qazvīnī, though much later than the Munich and Gotha manuscript, must have been copied from an older codex with a similar format; its association with the two earlier copies has been established by Badiée. The Sarre Qazvīnī is also close to a number of copies executed in the Deccan, c. 1572: if Schmitz's assumption of a c. 1640 dating for the Sarre Qazvīnī is correct, consequently it must have been copied after these Deccani codices; on the other hand, it may have served as their model if Badiée is instead correct in dating it to the fifteenth century. It is also closely related to a copy now in St Petersburg, Academy of Sciences, ms. E7, which could equally have served as the model for the sixteenth-century Deccani manuscripts. Other related codices are in St Petersburg, Academy of Sciences, ms. D307, and sections of a manuscript in Gotha, Forschungsbibliothek, A 1507. The whole group deserves a thorough study to assess the transmission of illustrated copies in Arabic of al-Qazvīnī's work. For the Deccani manuscripts see Badiée 1978a and Carboni 1995: 86–8. Illustrations of the St Petersburg ms. E7 are in Binyon, Wilkinson and Gray 1933: pls 7A–B, Pope and Ackermann 1938–9, V: pl. 854 and Petrosyan et al.

- 1995: 164–71, no. 24. For the St Petersburg ms. D307 see Badiee 1984: 102. For the Gotha ms. A 1507 see photographs in Meissner 1987: pls 2 and 9–13.
5. Thanks to Dr Hans Caspar Graf von Bothmer for this information.
 6. This fragmentary manuscript was introduced by Rührdanz 1973 and 1982 and discussed to some degree in Berlekamp 2003 and 2010. In her 1982 article, Rührdanz relates the Gotha illustrations to the so-called Small *Shāhnāma* manuscripts and to the dispersed copy of the *Mu'nis al-ahrār*, dated 1341 and subsequently demonstrated to have been copied in Isfahan. Marianna Shreve Simpson, in her thesis on the *Shāhnāma* codices, suggests a date close to 1300 and Baghdad as the place of production of these manuscripts (Simpson 1979). For the *Mu'nis al-ahrār*, see Mirza Muhammad 1928–30, Gray 1961: 60–1 and the complete study Swietochowski and Carboni 1994: 8–66.
 7. Berlekamp 2003 brought it to scholarly attention in her doctoral dissertation and further studied it in Berlekamp 2010 and 2011. A large number of illustrations are in Berlekamp 2011: figs 6, 12–13, 15, 19, 25–6, 51 and 56. I have not had the opportunity to study the codex in person therefore I rely on Berlekamp 2003 for its detailed description throughout this chapter.
 8. Sold 26 April 1990. See Sotheby's 1990: lot no. 182.
 9. The only brief study on this fragmentary manuscript, written at the time it appeared on the art market, is Carboni and Contadini 1990, in which it was tentatively assigned to a Mamluk atelier in the first half of the fourteenth century.
 10. Recently both Berlekamp (2011: fig. 75) and Contadini (2012: 172) have given the manuscript an early fourteenth-century attribution. I still maintain, however, that its relationship with the other early illustrated copies of this text suggests that it was produced after the London, Gotha and Istanbul codices, therefore at least post-1322. The folio numbering is presented here according to my own reconstruction. At the time of its sale at Sotheby's in 1990, the fragmentary manuscript was bound in an entirely accidental sequence together with a later treatise from a different text. After restoration, the codex was preserved in individual mats for each folio. It is now housed in the correct sequence in the Museum of Islamic Art in Doha. Thanks to Nabil Saidi and the late Don Baker for the information provided at the time it surfaced at Sotheby's.
 11. Among others, see the article 'Jovaynī, 'Alā'-al-Dīn' by G. Lane in *Encyclopaedia Iranica*, published online 9 March 2009 at <<http://www.iranicaonline.org/articles/jovayni-ala-al-din>> (last accessed 12 January 2015).
 12. The fragmentary manuscript in Gotha retains illustrated sections on the islands of the seas; trees and plants; the larger animals; and birds, which afford only subtle comparisons. As already noticed by Berlekamp (2010: 79), for example, the grassy background and the interaction between the male and female horses in the painting of the 'Horse' (*faras*) are more appealing and sophisticated in the Gotha (fol. 92r) than the Istanbul manuscript (fol. 145v); the same can be said for the depictions of the cows (*baqar*) and the wild cows (*baqar al-waḥsh*) (fols 95r, 96r and 147v, 148r respectively). In these two manuscripts, the majority of the quadrupeds are shown in pairs, male and female, according to the 'scientific' zoological illustrative tradition. The Munich and the London Qazvīni manuscripts instead show all animals in individual isolation.

13. Berlekamp 2010: 79–80 elaborates at some length on the different readership between the two manuscripts.
14. More strictly a geographical dictionary although its title betrays a broader scope, the *Āthār al-bilād wa akhbār al-'ibād* ('The Monuments of the Places and the History of Mankind'), which also survives in early fourteenth-century copies such as one in the British Library dated AH 729/CE 1329 (Or. 3623), was never illustrated with miniature paintings but only with drawings. It is worth mentioning that the calligrapher of the British Library manuscript of 1329, Muḥammad ibn Mas'ūd ibn Muḥammad ibn Maḥmūd al-Ḥamadānī, also copied the Istanbul Qazwīnī of 1322 (Berlekamp 2003: 244, note 1).
15. Some of Badi'ee's identifications have been corrected by Berlekamp. The lack of a critical edition and full translation in a western language of this complex and intriguing text is at the root of this issue.
16. See the discussion in Chapter 3.
17. For example, the dispersed Dioscorides of 1224, the greater part of which is in Istanbul, Süleymaniye Library, Aya Sofya no. 3703, and the complete manuscript of the same text in the Topkapı Sarayı, Istanbul, ms. Ahmet III, no. 2127, dated 626/1229. See Grube 1959, Ettinghausen 1962: 71–3, 87 and 89, Rogers 2010: figs 4–8, and Contadini 2012: pls 5–6, 12, 20–1, 25, 27–8 and 42–3.
18. See the discussion in Chapter 3.
19. The first three jinns are called *dilhāth*, *shiqq* and *mudhahhab*.
20. One page (fol. 189) presents a text added later with three empty spaces left for illustrations, exactly as in the above-mentioned section on the jinns.
21. The 'Lemon Tree' also has two illustrations but only one of them is narrative, as explained above.
22. See above, note 6. Berlekamp (2010: 78) comments that 'although Stefano Carboni subsequently commented [Carboni 1992: 411] that he felt it had probably been closer to Wasit, and earlier, than Rührdanz had suggested, her attribution was followed in a catalogue of Gotha's Oriental manuscripts [Nebes 1997]. The 1322 manuscript suggests that Rührdanz was right about the place while Carboni was right about the date.' Indeed, in my dissertation (Carboni 1992: 411) I had suggested that both dating and place of origin were likely to be closer to its Munich model, but I now concur with Berlekamp's assessment following the discovery of the 1332 Istanbul codex.
23. See the discussion in Chapter 3.
24. An earlier iconographic tradition of this type of literature survives in celebrated manuscripts such as, for example, the *Kitāb ṣuwar al-kawākib al-thābita* ('Book of the Images of the Fixed Stars') of 400/1009–10 in the Bodleian Library, Oxford, Marsh 144 (see Wellesz 1959) and the *Kitāb na't al-hayawān* ('Book on the Characteristics of Animals'), c. 1220–5, in the British Library, Or. 2784 (see Contadini 2012). For the herbals, see above, note 17.
25. Two famous examples are the so-called Schefer Ḥarīrī in Paris, Bibliothèque nationale, arabe 5847, dated 634/1237 and copied in Baghdad, and the *Kalīla wa Dimna* in the same library, arabe 3465, datable to c. 1220. See among others Ettinghausen 1962: 114, 116–19, 121–2 and 62–3 respectively; see also Grabar 1984, Grube 1991: 374, O'Kane 2003: 38–9 and 218, figs 1, 7, 20 and 27, al-Ḥarīrī 2004, Hillenbrand 2010 and Contadini 2012: pls 10, 13, 44 and 8.

26. See above, note 4.
27. It is sufficient here to mention a few manuscripts in the British Library: Pers. 178 of the Royal Asiatic Society (loan 11), late fifteenth century; Or. 16379, fifteenth century; Or. 7315, fifteenth century; Or. 13935, Ottoman, 1075/1654-5; Or. 7968, probably Mughal, seventeenth century. A large number of late illustrated copies of the *ʿAjāʾib al-makhlūqāt* is found in many libraries that collect oriental manuscripts.
28. For reasons of confidentiality the name of the dealer is not available in the public records of the British Library. However, the present writer has learnt from other sources that the manuscript was indeed acquired in Anatolia.

PART TWO

Description of the London Qazvīnī by Folio

THE FOLLOWING IS a description by folio of the contents of the London Qazvīnī. The title and author of the text are given at fol. 1r as *‘Ajā’ib al-makhlūqāt wa gharā’ib al-mawjūdāt* and Zakariyā ibn Muḥammad ibn Maḥmūd al-Qazvīnī (d. 682/1283).¹

The present description by folio offers the general content of a text which is often quoted in the literature on Islamic miniature painting but whose general significance as a literary work is little known.

The description by folio of the 135 extant folios of the London Qazvīnī includes: the translation and transliteration of all title headings (these are rendered in red ink throughout the manuscript whereas the text is black); an indication of the numbered lines taken up by the text (the text block has twenty-five lines of text to the page); a brief description of the diagrams found throughout the text; and additional information about the text when considered necessary. All the passages in quotation marks are translations from the original Arabic, which follows in transliteration.

The illustrations are indicated by their catalogue number abbreviated as ‘(cat. [...])’. The reader is referred to the Catalogue of Illustrations which follows this description, as well as to Part One of this book for further information on the illustrations.

The missing pages are also indicated throughout the description by folio with indented text. In these indented parts the content of the missing text is provided on the basis of the Munich Qazvīnī of 678/1280, the only earlier complete manuscript that has survived, together with a comparison of two available Arabic printed editions of this text (al-Qazvīnī 1903 and al-Qazvīnī 1977).

Although there is no exact correspondence between the Munich and the London Qazvīnī as regards the number of lines to the page and the density of the calligraphic hands, an indication is given of the numbers of the folios and lines of text from the Munich Qazvīnī which corresponds to the missing folios from the London manuscript. This is useful to reconstruct with some accuracy the total number of folios which constituted the London Qazvīnī when it was complete. After a detailed comparative analysis, it can be suggested that the total number of folios missing from the manuscript is

between seventy-five and seventy-eight, bringing the total number of folios in the original manuscript to between 210 and 213. This is in close agreement with the original 215 folios of the Munich Qazvīnī.

Description by folio

FOL. 11

Lines 1–4: Title page of the manuscript

The full title of the book is given as well as its author: 'The Book on the Wonders of Creation and the Oddities of Existing Things composed by Zakariyā ibn Muḥammad ibn Maḥmūd al-Qazvīnī' (*kitāb 'ajā'ib al-makhlūqāt wa gharā'ib al-mawjūdāt allafahu zakariyā ibn muḥammad ibn maḥmūd al-qazvīnī*).

Lines 4–5: Praise of the book's author

These words are framed within a 'cloud-shaped' (*abrī*)² blank background and set inside a simple cartouche decorated with palmettes and dots grouped three-by-three against a net of thin red hatched lines. Three gold rosettes complete the cartouche on the left side of the written text.³ Below the cartouche is a roundel filled with gold and framed by concentric lines in black ink. An external blue line embellished with twelve sets of three blue dots forming a triangle is painted along the edge at regular intervals. The diameter of the roundel is 120 mm.

FOL. 1V

Lines 1–25: First page of text

It includes a presentation of the work introduced by the *basmala*. The name of the author is mentioned again at line 12.

FOL. 2R

Lines 1–25: Continuation of the presentation

The first two lines are in verses. On line 14 is mentioned the name of 'Aṭā Malik ibn Muḥammad ibn Muḥammad,⁴ the dedicatee of al-Qazvīnī's book, introduced by a long eulogy.

FOL. 2V

Lines 1–8: Final part of the presentation

On lines 7–8, the complete title of the book is given again (see fol. 11). The author states that the four words which appear in the title will be fully explained in the following four 'Introductions' or 'Prefaces' (*muqaddimāt*).

Lines 9–25: 'The First Preface on the Explanation of [the word] Wonder' (*al-muqaddima al-ūlā fī sharḥ al-'ajab*)

FOLS 31–3V

Lines 1–25: Continuation of the First Preface

FOL. 4R

Lines 1–7: Final part of the First Preface

Lines 8–25: 'The Second Preface on the Section of Creation' (*al-muqaddima al-thānya fī taqṣīm al-makhlūqāt*)

FOL. 4V

Lines 1–18: Final part of the Second Preface**Lines 19–25: ‘The Third Preface on the Explanation of Oddity’**
(*al-muqaddima al-thālitha fī tafsīr al-gharīb*)

FOLS 5R–5V

Lines 1–25: Continuation of the Third Preface

FOL. 6R

Lines 1–9: Final part of the Third Preface**Lines 10–25: ‘The Fourth Preface on the Section of Existing Things’**
(*al-muqaddima al-rābi’a fī taqīm al-mawjūdāt*)

FOL. 6V

Lines 1–3: Final part of the Fourth Preface

On lines 2–3 are two final verses in poetry.

Lines 4–24: Index of the First Part of the bookThe title reads: ‘And this is the Index of the Book on the Wonders of Creation and the Oddities of Existing Things / the First Part, on the Heavenly Things’ (*wa hadhā fihrist kitāb ‘ajā’ib al-makhlūqāt wa gharā’ib al-mawjūdāt / al-maqāla al-ūlā fī al-‘ulwiyāt*). This First Part is subdivided into thirteen Chapters, or ‘Views’ (*naẓar*).One folio missing including: the index of the Second Part, on the Lower Things (*al-maqāla al-thānya fī al-sufuliyāt*); the index of the Created Things, i.e. minerals, plants and animals (*fī al-kā’ināt wa hiya al-ma’ādīn wa al-nabāt wa al-ḥayawān*).

FOL. 7R

Line 1: The *basmala***Lines 2–3: Title of ‘The First Part, on the Heavenly Things’** (*al-maqāla al-ūlā fī al-‘ulwiyāt*)**Lines 4–10: The First Chapter**It deals with the true nature of the Spheres and their outward appearance. Below line 10, a diagram formed by thirteen concentric circles shows the schematic composition of the universe: the inner circle represents the ‘Terrestrial Globe’ (*kurat al-arḍ*), followed by the ‘Spheres of Water, Air and Fire’ (*kurat al-mā’ al-hawā’ al-nār*) and the nine ‘Heavenly Spheres’ (*aflāk*).

FOL. 7V

Lines 1–15: Final part of the First Chapter**Lines 16–24: ‘The Second Chapter on the Sphere of the Moon’**
(*al-naẓar al-thānī fī falak al-qamar*)

Three folios missing (Munich Qazvīnī: 2.5 fols + 25 lines) including: the text on the Moon and the beginning of the Third Chapter on the planet Mercury.

FOL. 8r

Diagram showing the position of the Planet 'Mercury' (*'uṭārid*), its relation to the Earth, and its orbital revolution.

Lines 1–3: 'Paragraph' (*faṣl*) on Mercury and illustration (cat. 1)

FOL. 8v

Lines 1–12: 'The Fourth Chapter on the Sphere of Venus' (*al-naẓar al-rābi' fī falak al-zuhra*)

Between lines 7 and 8, a diagram shows the position of Venus and its orbit.

Probably ten folios missing (Munich Qazvīnī: 9 fols and 2 lines)⁵ including: the end of the text on the planet Venus, the text of the remaining four planets: Sun (*al-shams*), Mars (*mirriḥ*), Jupiter (*mushtarī*) and Saturn (*al-zuhī*), corresponding to Chapters Five to Eight, and part of Chapter Nine on the Fixed Stars, including the entire section on the twenty-one constellations of the Northern Hemisphere, the twelve constellations of the Zodiac and Cetus and the first constellation of the Southern Hemisphere.

FOL. 9r

Lines 1–7: 'The Constellation of Orion' (*kawkabat al-jabbār*) and illustration (cat. 2)

Lines 8–15: 'The Constellation of Eridanus' (*kawkabat al-nahr*)

FOL. 9v

Illustration of Eridanus (cat. 3)

Lines 1–7: 'The Constellation of Lepus' (*kawkabat al-arnab*) and illustration (cat. 4)

Lines 8–17: 'The Constellation of Canis Maior' (*kawkabat al-kalb al-akbar*)

FOL. 10r

Illustration of Canis Maior (cat. 5)

Lines 1–12: 'The Constellation of Canis Minor' (*kawkabat al-kalb al-mutaqaddam*) and illustration (cat. 6)

Lines 13–19: 'The Constellation of Argo Navis' (*kawkabat al-safīna*)

FOL. 10v

Illustration of Argo Navis (cat. 7)

Lines 1–17: 'The Paragraph on the Advantages Deriving from the South Pole' (*faṣl fī fawā'id al-quṭb al-janūbi*)

FOL. 11r

Lines 1–10: 'The Constellation of Draco' (*kawkabat al-shujā'*) and illustration (cat. 8)

Lines 11–14: 'The Constellation of Crater' (*kawkabat al-bāṭiya*) and illustration (cat. 9)

Lines 15–20: 'The Constellation of Corvus' (*kawkabat al-ghurāb*) and illustration (cat. 10)

Lines 21–25: ‘The Constellation of Centaurus’ (*kawkabat al-qinṭawras*)

FOL. 11V

Line 1: End of Centaurus and illustration (cat. 11)

Lines 2–5: ‘The Constellation of Lupus’ (*kawkabat al-ṣubʿ*) **and illustration** (cat. 12)

Lines 6–8: ‘The Constellation of Ara’ (*kawkabat al-mijmara*)

Probably nine folios missing (Munich Qazvīnī: 8.5 fols) including: end of the text on the constellation of Ara and of the last two constellations of the Southern Hemisphere, Corona Australis and Piscis Austrinus, the Paragraph on the 28 Mansions of the Moon, the Tenth Chapter on the Sphere of the Twelve Signs of the Zodiac, the Eleventh Chapter on the Ninth Sphere, or ‘Sphere of the Spheres’ (*falak al-aflāk*) and the beginning of the Twelfth Chapter on the ‘Inhabitants of the Heavens, the Angels’ (*sukkān al-samawāt wa hum al-malāʾika*), including the text on the ‘Carriers of the Throne of God’ (*ḥamlāt al-ʿarsh*), the Angel Rūḥ, the Archangel Israfil and the Archangel Gabriel.

FOL. 12R

Illustration of the Archangel Gabriel (cat. 13)

Lines 1–2: ‘The Archangel Michael’ (‘And among them Michael, benedictions be upon him and peace’, *wa minhum mikāʾiyl ʿalayhi al-ṣalāt wa al-salām*) **and illustration** (cat. 14)

FOL. 12V

Lines 1–4: End of ‘The Archangel Michael’

Lines 5–25: ‘The Archangel Azrael’ (‘And among them Azrael . . .’, *wa minhum ʿizrāʾiyl . . .*)

FOL. 13R

Illustration of the Archangel Azrael (cat. 15)

Lines 1–9: End of ‘The Archangel Azrael’

FOL. 13V

Lines 1–6: ‘The Angels Surrounding God’ (*al-karūbiyyūn*) **and illustration** (cat. 16)

Lines 7–10: ‘The Angels of the Seven Skies’ (*malāʾika al-samawāt al-sabʿ*) **and illustration** (cat. 17)

Four folios missing (Munich Qazvīnī: 3.5 fols and 8 lines) including: the Angels from the Second through to the Seventh Sky, six other classes of Angels (*al-kātibūn*, *al-muʿaqqabāt*, *munkar wa nakīr*, *al-siyyāḥūn*, *hārūt wa mārūt*, *al-malāʾika al-muwakkilūn bi-l-kāʾināt*) and the beginning of the Thirteenth Chapter on Time, including part of the Paragraph on the Nights and Days.

FOL. 14R

Lines 1–2: End of the Discourse on the Nights and Days**Lines 2–25: ‘The Virtues of the Days and their Characteristics’** (*faḍā’il al-ayyām wa khawāṣṣuhā*), including ‘Friday’ (*yawm al-jum’a*), ‘Saturday’ (*yawm al-sabt*), ‘Sunday’ (*yawm al-aḥad*) and ‘Monday’ (*yawm al-ithnīn*)

FOL. 14V

Lines 1–20: End of the Virtues of the Days, including ‘Tuesday’ (*yawm al-thulathā*), ‘Wednesday’ (*yawm al-arba‘ā*) and ‘Thursday’ (*yawm al-khamīs*), followed by a ‘Conclusion’ (*khātima*)**Lines 21–25: Verses of poetry** (*qaṣīda*)

FOL. 15R

Lines 1–3: End of the *qaṣīda***Lines 4–6: ‘The Discourse on the Months’** (*al-qawl fī al-shuhūr*)**Lines 7–16: ‘The Paragraph on the Arab Months’** (*faṣl fī shuhūr al-‘arab*)**Lines 17–23: ‘The First Month, *al-muḥarram*’**

FOL. 15V

Lines 1–11: End of *al-muḥarram***Lines 12–19: ‘The Second Month, *al-ṣafar*’****Lines 19–24: ‘The Third Month, *rabī‘ al-awwal*’****Line 24: ‘The Fourth Month, *rabī‘ al-akhar*’**

FOL. 16R

Lines 1–2: End of *rabī‘ al-akhar***Lines 3–5: ‘The Fifth Month, *jumādā al-ūlā*’****Lines 6–12: ‘The Sixth Month, *jumādā al-ukhrā*’****Lines 13–25: ‘The Seventh Month, *rajab*’**

FOL. 16V

Lines 1–4: End of *rajab***Lines 5–9: ‘The Eighth Month, *sha‘bān*’****Lines 10–18: ‘The Ninth Month, *ramaḍān*’****Lines 19–24: ‘The Tenth Month, *shawwāl*’****Line 25: ‘The Eleventh Month, *dhū al-qa‘da*’**

One folio missing including: the end of the Month *dhū al-qa‘da*, title and text on the Twelfth Month, *dhū al-ḥijja*, the Conclusion (*khātima*) of the Chapter on the Arab Months and the beginning of the Chapter on the Roman [Byzantine] Months (*shuhūr al-rūm*), including the text on the Month of *tishrīn al-awwal* and the beginning of the text on the Month of *tishrīn al-akhar*.

FOL. 17R

Lines 1–5: End of the Second Byzantine Month, *tishrīn al-akhar***Lines 5–15: ‘The Third Byzantine Month, *kānūn al-awwal*’**

Lines 16–21: ‘The Fourth Byzantine Month, *kānūn al-thānī*’

Lines 22–25: ‘The Fifth Byzantine Month, *shubāt*’

FOL. 17V

Lines 1–20: End of the Month of *shubāt*

Lines 21–25: ‘The Sixth Byzantine Month, *adhār*’

FOL. 18R

Lines 1–6: End of the Month of *adhār*

Lines 7–12: ‘The Seventh Byzantine Month, *nīsān*’

Lines 13–20: ‘The Eighth Byzantine Month, *ayyār*’

Lines 21–25: ‘The Ninth Byzantine Month, *ḥazīrān*’

FOL. 18V

Lines 1–4: End of the Month of *ḥazīrān*

Lines 5–17: ‘The Tenth Byzantine Month, *tammūz*’

Lines 18–25: ‘The Eleventh Byzantine Month, *āb*’

FOL. 19R

Lines 1–9: ‘The Twelfth Byzantine Month, *aylūl*’

Lines 10–25: A *qaṣīda* on the meaning of the Byzantine Months

‘Šāliḥ ibn ‘Abd al-Quddūs⁶ mentioned this meaning in his *qaṣīda*’ (*wa dhakara hadhā al-ma‘nā ṣāliḥ ibn ‘abd al-quddūs fī qaṣīdatihi ḥādhihi*). From line 12 only part of the *qaṣīda* is legible due to damage to the lower right corner of the page.

FOL. 19V

Lines 1–25: Continuation of the *qaṣīda*

From line 12 only part of the text is legible due to damage to the lower left corner of the page.

FOL. 20R

Lines 1–16: End of the *qaṣīda*

Lines 17–25: ‘The Paragraph on the Persian Months’ (*faṣl fī shuhūr al-fars*)

From line 11 only part of the text is legible due to damage of the lower right of the page. The missing text was copied at a later time in sketchy handwriting on the paper patch that was pasted to repair the corner.

FOL. 20V

Lines 1–3: End of the introductory text on the Persian Months

Lines 4–16: ‘The First Persian Month, *farwardīn*’ and illustration (cat. 18)

FOL. 21R

Lines 1–6: End of the Month of *farwardīn*

Lines 7–11: ‘The Second Persian Month, *irdabīhisht*’

Lines 11–14: ‘The Third Persian Month, *khirdād*’

Lines 15–19: ‘The Fourth Persian Month, *tīr*’

Lines 19–22: ‘The Sixth Month, *shahrīr*’⁷

This page was written in a larger calligraphic hand although the handwriting seems to be the same as the rest of the manuscript.

FOL. 21V

Lines 1–4: End of the Month of *shahrīr*

Lines 4–7: ‘The Eighth Persian Month, *abān*’⁸

Lines 7–14: ‘The Ninth Persian Month, *adhar*’

Lines 15–27: ‘The Tenth Persian Month, *day*’

Line 27: ‘The Eleventh Persian Month, *bahman*’

This is the only page in the manuscript showing more than twenty-five lines of text per page although the calligraphic hand seems to be the same with a more condensed writing.⁹

FOL. 22R

Lines 1–22: Continuation of the Month of *bahman* and illustration (cat. 19)

FOL. 22V

Line 1: End of the Month of *bahman*

Lines 2–9: ‘The Twelfth Persian Month, *isfandārmud*’

Lines 10–18: ‘The Discourse on the Years’ (*al-qawl fī al-sinīn*)

Lines 19–24: ‘The Paragraph on the Quarters of the Year [the Seasons]’ (*faṣl fī arbā‘ al-sana*)

FOL. 23R

Lines 1–8: End of the Paragraph on the Seasons

Lines 9–15: ‘Spring’ (*al-rabī‘*)

Lines 16–23: ‘Summer’ (*al-ṣayf*)

Lines 24–25: ‘Autumn’ (*al-kharīf*)

FOL. 23V

Lines 1–7: End of Autumn

Lines 8–17: ‘Winter’ (*al-shitā*)

Lines 18–24: ‘The Paragraph on Some Wonders Pertaining to the Recurrence of the Years’ (*faṣl fī ba‘ḍ al-‘ajā‘ib al-muta‘alliqa bi-takrār al-sinīn*)

Three folios missing (Munich Qazvīnī: 3 fols) including: the end of the paragraph on Some Wonders, which concludes the First Part of the book, on the Heavenly Things, the beginning of the ‘Second Part on the Lower Things’ (*al-maqāla al-thānya fī al-suflīyyāt*), including the ‘First Chapter on the Elements’ (*al-nazar al-awwal fī al-‘anāṣir*),¹⁰ the ‘Second Chapter on the Sphere of Fire’ (*al-nazar al-thānī fī kurat al-nār*) and the beginning of the ‘Third Chapter on the Sphere of Air’ (*al-nazar al-thālith fī kurat al-hawā*).

FOL. 24R

Lines 1–12: End of ‘The Paragraph on the Clouds and the Rain’ (*faṣl fī al-sahāb wa al-maṭar*)

Lines 12–25: ‘The Paragraph on the Winds’ (*faṣl fī al-riyāḥ*), including ‘The Storm’ (*al-zawba’a*) among the Strange Winds

FOL. 24V

Lines 1–4: End of the Storm

Lines 5–8: ‘The Discourse on the Origins of the Winds’ (*al-qawl fī uṣūl al-riyāḥ*), followed by a diagram showing the position of the Four Winds

Lines 9–16: ‘The North Wind’ (*al-shimāl*)

Line 17: ‘The South Wind’ (*al-janūb*)

FOL. 25R

Lines 1–10: End of the South Wind

Lines 11–16: ‘The East Wind’ (*al-ṣabān*)

Lines 17–21: ‘The West Wind’ (*al-dabūr*)

Lines 21–25: ‘The Paragraph on Strange Advantages Pertaining to the Winds’ (*faṣl fī fawā'id ‘ajība li-l-riyāḥ*)

FOL. 25V

Lines 1–2: End of the Advantages of the Winds

Lines 3–18: ‘The Paragraph on Thunder and Lightning’ (*faṣl fī al-ra’d wa al-barq*)

Lines 19–21: ‘The Paragraph on the Halo (around the Moon), the Rainbow, and the Glow’ (*faṣl fī al-hāla wa qaws qazaḥ wa al-dawu’*)

Lines 21–23: ‘The First Introduction, on the Reflection of Light’ (*al-muqaddima al-ūlā fī al-in‘ikās*)

FOL. 26R

Lines 1–17: Continuation of the Reflection of Light, with an explanatory diagram between lines 3 and 4

FOL. 26V

Line 1: End of the Reflection of Light

Lines 2–12: ‘The “Minor” Reflection’ (*al-mir’a al-ṣaghīra*)

Lines 12–17: ‘The Halo’ (*al-hāla*)

Lines 18–25: ‘The Rainbow’ (*qaws qazaḥ*), with an explanatory diagram to the left of lines 16–24

FOL. 27R

Lines 1–16: End of the Rainbow and illustration (cat. 20)

Lines 16–18: ‘End of the Third Chapter, on the Sphere of Air’ (*wa hadhā ākhar al-naẓar al-thālith fī kurat al-hawā’*)

There is no mention of the Glow, previously alluded to in the title of this Paragraph.

FOL. 27V

Lines 1–24: ‘The Fourth Chapter, on the Sphere of Water’¹¹ (*al-naẓar al-rābi‘ fī kurat al-mā’*)

FOL. 28R

Lines 1–5: End of the introductory text of the Fourth Chapter

Lines 6–16: ‘The Paragraph on the Development of the Sea as Compared with the Earth’ (*faṣl fī sayrūrat al-baḥr fī jānīb al-arḍ*)

Lines 16–25: ‘The Paragraph on the Strange Conditions which Occur to the Seas’ (*faṣl fī aḥwāl ‘ajība ta’ruḍu al-biḥār*)

FOL. 28V

Lines 1–7: End of the Strange Conditions of the Seas

Lines 8–24: ‘The Surrounding Sea’, or the Ocean (*al-baḥr al-muḥīṭ*)¹²

FOL. 29R

Lines 1–9: End of the Ocean, with a map of the World between lines 2 and 3

FOL. 29V

Lines 1–15: ‘The Chinese Sea’ (*baḥr al-ṣīn*)

Line 15: ‘The Paragraph on the Islands of the Chinese Sea’ (*faṣl fī jazā’ir baḥr al-ṣīn*)

Lines 16–25: ‘The Island[s] of Sumatra’ (*jazīrat zābaj*) and illustration (cat. 21)

FOL. 30R

Lines 1–14: Continuation of the Island[s] of Sumatra and illustrations (cat. 22–3)

FOL. 30V

Lines 1–17: End of the Island[s] of Sumatra and illustrations (cat. 24–6)

FOL. 31R

Lines 1–15: ‘The Island of Rāmnī’ (*jazīrat rāmnī*) and illustrations (cat. 27–8)

FOL. 31V

Line 1: End of the Island of Rāmnī and illustration (cat. 29)

Lines 2–5: ‘The Island of Korea’ (*jazīrat silā*) and illustration (cat. 30)

FOL. 32R

Lines 1–6: ‘The Island[s] of Wāq-wāq’ (*jazīrat al-wāqwāq*) and illustration (cat. 31)

Line 7: ‘The Island of Nias’ (*jazīrat al-niyān [bunān]*) and illustration (cat. 32)

FOL. 32V

Lines 1–2: End of the Island of Nias and illustration (cat. 33)

Lines 3–5: The Island of ‘Aṭwarān’ and illustration (cat. 34)

One folio missing including: the beginning of the text on the Strange Animals that are found in the Chinese Sea, including seven animals.

FOL. 33R

Lines 1–4: The Fish Called ‘Sayalān’ and illustration (cat. 35)**Lines 5–7: ‘The Dugong’ (*aṭum*) and illustration (cat. 36)****Lines 8–11: ‘A Species of Crab’ (*naw‘min al-saraṭān*) and illustration (cat. 37)****Lines 12–17: ‘Large Snakes’ (*al-ḥayyāt al-‘aẓīma*) and illustration (cat. 38)**

FOL. 33V

Lines 1–11: End of the Large Snakes**Lines 12–21: ‘The Indian Sea’ (*baḥr al-hind*)****Lines 22–23: ‘The Paragraph on the Islands of this Sea’ (*faṣl fī jazā‘ir hadhā al-baḥr*)****Line 24: The Island of ‘Bartā’iyl’**

FOL. 34R

Lines 1–14: End of the Island of *Bartā’iyl* and illustration (cat. 39)**Lines 14–17: The Island of ‘*Salāmiṭ*’**

FOL. 34V

Line 1: End of the Island of *Salāmiṭ***Lines 2–9: ‘The Island of the Palace’ (*jazīrat al-qaṣr*) and illustration (cat. 40)****Lines 9–11: The Island of ‘*Thulth*’ [?]****Lines 12–14: ‘The Island of Java’[?] (*jazīrat jāba*)**

FOL. 35R

Illustration of the Island of Java (cat. 41)**Lines 1–3: ‘The Nicobar Island(s)’ (*jazīrat lankālūs*)****Lines 3–12: ‘The Island of the Dragon’ (*jazīrat al-tinnīn*) and illustration (cat. 42)**

FOL. 35V

Lines 1–3: End of the Island of the Dragon and illustration (cat. 43)**Lines 4–11: ‘The Paragraph on the Animals of this Sea’ (*faṣl fī ḥayawān hadhā al-baḥr*), including the story of a blessed bird called *fānūn* [?]****Lines 12–14: ‘The Human-headed Fish’ (*samaka wajhuhā ka-wajh al-insān*) and illustration (cat. 44)****Lines 15–17: A Fish Living on the Surface of the Sea and illustration (cat. 45)****Lines 18–25: A Sea Animal Able to Create Fire and a Flying Fish and illustrations (cat. 46–8)**

FOL. 36R

Lines 1–2: ‘An [ink-providing] Large Fish’ (*samaka kabīra*) and illustration (cat. 49)**Lines 3–6: ‘The [Snake-headed] Green Fish’ (*samaka khaḍrā*) and illustration (cat. 50)****Lines 6–12: ‘A Circular Fish [called *gāw māhī*]’ (*samaka mudawwara*) and illustration (cat. 51)****Lines 13–17: ‘The Persian Sea’ (*baḥr fāris*)**

FOL. 36V

Lines 1–25: End of the introductory text on the Persian Sea

FOL. 37I

Lines 1–2: A Paragraph on the Islands of the Persian Sea

Lines 2–16: ‘The Island of Kharg’ (*jazīrat khārik*)

Lines 17–18: The Island of ‘Jāshik’ and illustration (cat. 52)

FOL. 37V

Lines 1–3: End of the Island of Jāshik

Lines 4–8: The Island of ‘Kandūlāwarī’ and illustration (cat. 53)

Line 9: ‘The Paragraph on the Mention of Some Strange Animals of this Sea’ (*faṣl fī dhikr ba‘d al-ḥayawānāt al-‘ajība fī hadhā al-baḥr*)

Lines 9–15: A Fish which Shakes the Surface of the Sea and illustration (cat. 54)

Lines 16–18: The Fish Called ‘Asyūr’ and illustration (cat. 55)

FOL. 38I

Lines 1–4: The Fish Called ‘Juwāfa’ and illustration (cat. 56)

Lines 5–11: ‘The Red Mullet’ (*barastūj*) **and illustration** (cat. 57)

Lines 12–17: ‘The Shark’ (*kawsaj*) **and illustration** (cat. 58)

Lines 17–25: ‘The Sea Dragon’ (*al-tinnīn*) **and illustration** (cat. 59)

FOL. 38V

Lines 1–5: The Green Fish with a Proboscis and illustration (cat. 60)

Lines 6–11: ‘A Circular [Shield-like] Fish’ (*samaka mudawwara*) **and illustration** (cat. 61)

Lines 11–25: ‘A Strange Story’ (*hikāya ‘ajība*) on a Man from Isfahan

FOL. 39I

Lines 1–15: Continuation of the text on the Man from Isfahan and illustrations (cat. 62–3)

FOL. 39V

Lines 1–5: End of the story on the Man from Isfahan

Lines 6–14: ‘The Sea of Qulzum [the Red Sea]’ (*baḥr al-qulzum*)

Line 14: ‘The Paragraph on its Islands’ (*faṣl fī jazā’irihi*)

Lines 15–21: The Island of ‘Tīrān’

Lines 21–24: ‘The Island of the Informing Animal’ (*jazīrat al-jassāsa*)

FOL. 40I

Lines 1–4: End of the Island of the Informing Animal and illustration (cat. 64)

Under the illustration, the page is so damaged that the text is illegible. It contained some lines (six of which are partially visible) on the ‘Magnetic Mountain’ (*jabal al-maghnaṭīs*) found on this island; the beginning of the Paragraph on the Animals of the Red Sea; a Large Fish That Can Capsize a Ship with its Tail; and the Owl-headed Fish.

FOL. 40V

Line 1: A Fish Twenty Cubits Long and illustration (cat. 65)

Lines 2–4: A Fish Turning into Cotton after its Death and illustration (cat. 66)

Lines 5–6: The Cow Fish and illustration (cat. 67)

Under the illustration the page is damaged and the text (nine lines of which are visible) is illegible. It contained the introduction on the 'Sea of Zanj'¹³ (*baḥr al-zanj*); the beginning of the Paragraph on the islands of the Sea of Zanj; and the beginning of the 'Burnt Island' (*al-jazīra al-muḥtaraqa*).

FOL. 41R

Lines 1–6: End of the Burnt Island

Lines 6–14: 'The Island of Noise' (*jazīrat al-ḍawḍā'*) and illustration (cat. 68)

Lines 15–19: 'The Island of the Blind People' (*jazīrat al-ʿūr*) and illustration (cat. 69)

FOL. 41V

Lines 1–2: End of the Island of the Blind People

Lines 2–15: The Island of the Dog-headed People and illustration (cat. 70)

FOL. 42R

Lines 1–5: End of the Island of the Dog-headed People and illustration (cat. 71)

Line 5: Paragraph on the Animals of the Sea of Zanj

Lines 5–12: 'The Saw-fish' (*minshār*) and illustration (cat. 72)

FOL. 42V

Lines 1–10: 'The Whale' (*bāl*) and illustration (cat. 73)

Lines 11–16: 'The Western Sea' (*baḥr al-maghrib*)

FOL. 43R

Lines 1–9: End of the introduction on the Western Sea

Lines 10–19: The Paragraph on the Islands of the Western Sea including the Island of the Talismanic Statue on the Tower and illustration (cat. 74)

FOL. 43V

Lines 1–4: The Island of 'Tinnīs'

Lines 4–7: 'The Island with Many [Sleep-inducing] Trees and Flowers' (*jazīra kathrat al-ashjār wa al-azhār*) and illustration (cat. 75)

Lines 8–13: The Island of the Church of the Crow and illustration (cat. 76)

FOL. 44R

Lines 1–4: End of the Island of the Church of the Crow

Lines 4–8: The Island of 'Jālīṭa' and illustration (cat. 77)

Lines 9–17: 'The Island of the Monastery' (*jazīrat al-dayr*) and illustration (cat. 78)

FOL. 44V

Lines 1–4: The Paragraph on the Strange Animals of the Western Sea, including the description of a fish found near the city of Baṭrūn

Lines 4–14: The Story of the Animal which Clings to a Rock and illustration (cat. 79)

Lines 14–19: The Blessed Bird Called ‘Mārūz’

Lines 19–25: The Fish Called the ‘Old Jew’ (*al-shaykh al-yahūdī*) and illustration (cat. 80)

FOL. 45r

Lines 1–6: ‘The Mule-fish’ (*baghl*) and illustration (cat. 81)

Two lines are missing due to damage to the text.

Lines 6–15: The Flounder, or ‘The Fish of Moses and Joshua’ (*ḥawt mūsā wa yūshaʿ*) and illustration (cat. 82)

Lines 15–17: The Cuttlefish or Squid, or ‘The Fish in the Shape of a Bulgarian Leather Cap’ (*samaka ka-annahā qalansuwa bulghāriyya*)

FOL. 45v

Lines 1–2: End of the Cuttlefish

Lines 2–3: ‘A Fish that Keeps Moving if One of Its Parts Is Cut off’ (*samaka tuqṭaʿ qitʿan wa hiya tataḥarraku*) and illustration (cat. 83)

Two lines are missing because of damage to the text.

Lines 4–5: ‘The Swallow[-fish]’ (*khuttāf*) and illustration (cat. 84)

Lines 5–10: ‘The Minaret-like Fish’ (*samaka ʿalā shakl al-manāra*) and illustration (cat. 85)

Lines 11–14: ‘A Large Fish that Remains on Land when the Water Decreases’ (*samaka kabīra idhā naqaṣa al-māʾ baqiyat ʿalā al-ṭīn*) and illustration (cat. 86)

FOL. 46r

Lines 1–2: ‘The Many Sea Monsters Living in that Sea’ (*al-tanānīn fī hadhā al-baḥr kathīra*)

Lines 3–10: ‘The Caspian Sea’ (*baḥr al-khazar*)

Lines 11–14: The Paragraph on the Islands of the Caspian Sea

Lines 15–24: ‘The Island of the Snakes’ (*jazīrat al-ḥayyāt*) and illustration (cat. 87)

FOL. 46v

Lines 1–2: ‘The Island of the Jinn’ (*jazīrat al-jinn*)

Lines 3–5: ‘The Island of the Sheep’ (*jazīrat al-ghanam*) and illustration (cat. 88)

Lines 6–9: The Paragraph on the Animals of the Caspian Sea, including a story on a Woman-like Creature Expelled by a Large Fish and illustration (cat. 89)

FOL. 47r

Lines 1–2: End of the story of a Large Fish

Lines 2–6: ‘The Huge Sea Dragon’ (*al-tinnīn al-ʿazīm*) and illustration (cat. 90)

Lines 7–14: A Strange Story concerning Khusraw Anūshirvān

FOL. 47v

Lines 1–2: End of the story of Khusraw Anūshirvān

Lines 3–15: ‘The Discourse on the Animals Living in the Water’
(*al-qawl fī ḥayawān al-māʾ*)

Lines 16–23: ‘The Sea Hare’ (*arnab al-baḥr*) **and illustration** (cat. 91)

Line 24: The Fish Called ‘Alīs’

One folio missing including: the second part of the text on the Fish Called ‘Alīs’, ‘Sea Man’ (*insān al-māʾ*), ‘Sea Cow’ (*baqarat al-māʾ*), ‘Whale’ (*bāl*) and ‘Crocodile’ (*timsāḥ*).

FOL. 48r

Lines 1–4: End of the Crocodile

Lines 5–15: The Sea Dragon and illustration (cat. 92)

FOL. 48v

Lines 1–7: ‘The Catfish’ (*jarrī*) **and illustration** (cat. 93)

Lines 8–11: ‘The Lamprey’ (*julkā*) **and illustration** (cat. 94)

Lines 12–17: ‘The Dolphin’ (*dalfīn*) **and illustration** (cat. 95)

Lines 18–22: A Fish Called ‘Dhūbyān’ and illustration (cat. 96)

Lines 23–25: ‘The Torpedo’ (*raʿāda*)

FOL. 49r

Lines 1–9: End of the Torpedo and illustration (cat. 97)

Lines 10–15: ‘The Pilot-Fish’ (*zamūr*) **and illustration** (cat. 98)

Lines 16–25: ‘The Crab’ (*saraṭān*) **and illustration** (cat. 99)

FOL. 49v

Lines 1–7: End of the Crab

Lines 8–12: ‘The Lobster’ (*saraṭān al-baḥr*) **and illustration** (cat. 100)

Lines 13–20: ‘The Skink’ (*saqanqūr*) **and illustration** (cat. 101)

Lines 21–25: ‘The Turtle’ (*sulahfā*)

FOL. 50r

Lines 1–18: End of the Turtle and illustrations (cat. 102–3)

Lines 19–24: ‘The Fish’ (*samak*) **and illustration** (cat. 104)

FOL. 50v

Lines 1–4: End of the Fish

Lines 5–10: ‘The Carp’ (*shabbūt*) **and illustration** (cat. 105)

Lines 11–14: ‘The Ray’ (*shifnīn*) **and illustration** (cat. 106)

Lines 15–16: ‘The Anchovy’ (*ṣīr*) **and illustration** (cat. 107)

Lines 17–21: ‘The Frog’ (*difḍīʿ*) **and illustration** (cat. 108)

Four lines are missing due to damage to the text.

FOL. 51r

Lines 1–17: End of the Frog

Lines 18–25: ‘The Leech’ (*ʿalaq*) **and illustration** (cat. 109)

FOL. 51v

Lines 1–8: A Species of Turtle Called ‘Ghaṭā’ and illustration (cat. 110)

Lines 9–25: ‘The Hippopotamus’ (*faras al-mā*) and illustration (cat. 111)

FOL. 52R

Line 1: End of the Hippopotamus

Lines 2–3: A Cetacean Called ‘Qāṭūs’

Lines 3–4: A Cetacean Called ‘Qīṭā’ and illustration (cat. 112)

Lines 5–15: ‘The Beaver’ (*qunduz*) and illustration (cat. 113)

Lines 15–17: ‘The Sea Urchin’ (*qunfudh al-mā*) and illustration (cat. 114)

FOL. 52V

Line 1: End of the Sea Urchin

Lines 2–8: ‘The Narwhal’ (*qūqī*) and illustration (cat. 115)

Lines 9–19: ‘The Otter’ (*kalb al-mā*) and illustration (cat. 116)

Lines 20–25: ‘The Shark’ (*kawsaj*) and illustration (cat. 117)

FOL. 53R

Lines 1–15: ‘The Fifth Chapter on the Sphere of Earth’ (*al-naẓar al-khāmis fī kurat al-arḍ*)

Lines 16–24: ‘The Paragraph on the Different Opinions of the Ancients about the Appearance of Earth’ (*faṣl fī ikhtilāf arā’ al-qudamā’ fī ha’yat al-arḍ*)

FOL. 53V

Lines 1–4: End of the Paragraph on the Different Opinions

Lines 4–11: Text of ‘The Paragraph on the Measure of the Earth’s Volume’ (*faṣl fī miqdār jirm al-arḍ*)

Lines 11–24: ‘The Paragraph on the Quarters of Earth and their Structure’ (*faṣl fī arbā’ al-arḍ wa ‘imārātihā*)

Lines 24–25: ‘The Paragraph on the Climates [of the Earth]’ (*faṣl fī aqālīm [al-arḍ]*)

FOL. 54R

Lines 1–6: End of the Paragraph on the Climates with an explanatory drawing below the text

Lines 7–10: ‘The Paragraph on Earthquakes and Seaquakes the Earth Is Subject to’ (*faṣl fī mā ya’ruḍu li-l-arḍ min al-zilzila wa al-khasf*)

FOL. 54V

Lines 1–4: End of the Paragraph on Earthquakes

Lines 5–25: ‘The Paragraph on the Formation of the Plain as Mountains and the Land as Sea and Vice versa’ (*faṣl fī sayrūrat al-saḥl jabalan wa al-barr baḥran wa ‘aksihumā*)

FOL. 55R

Lines 1–3: End of the Paragraph on the Formation of Mountains and Seas¹⁴

Lines 4–22: ‘The Paragraph on the Benefits of the Mountains, their Characteristics and their Oddities’ (*faṣl fī fawā’id al-jibāl wa khawāṣṣuhā wa ‘ajā’ibuhā*)

Lines 23–25: Mount ‘Awlastān’

FOL. 55V

Line 1: Mount 'Abū Qubays'**Lines 2–13:** Mount 'Arwand'**Lines 14–17:** Mount 'Asbara'**Lines 18–21:** Mount 'Altar'**Lines 21–24:** The Mountains of 'Andalus'**Line 25:** Mount 'Bajna'

FOL. 56r

Lines 1–2: End of Mount Bajna**Lines 3–4:** Mount 'Barānis'**Lines 5–6:** 'The Mount of Jerusalem' (*jabal al-quds*)**Lines 7–8:** Mount 'Banḥamand'**Lines 9–14:** Mount 'Bisutūn' and illustration (cat. 118)

FOL. 56v

Lines 1–5: A *qaṣīda* by Abū 'Umar al-Kasrawī related to Mount Bisutūn**Lines 6–7:** Mount 'Thabīr'**Lines 8–10:** Mount 'Thawr Aṭḥal'**Lines 10–11:** The Mount of 'Jāba'**Lines 12–13:** Mount 'Jashn Aram'**Lines 14–15:** Mount 'Jūdī'**Lines 16–18:** Mount 'Jawshan'**Lines 19–21:** The Mounts of 'Ḥarīth and Ḥuwayrīth'**Lines 22–23:** Mount 'Ḥirā'**Lines 24–25:** Mount 'Ḥawdquwwir'

FOL. 57r

Lines 1–6: End of Mount Ḥawdquwwir**Lines 7–8:** 'The Mountain of the Snakes' (*jabal al-ḥayyāt*)**Lines 9–10:** Mount 'Dāmghān'**Lines 11–25:** Mount 'Damāwand'

FOL. 57v

Lines 1–11: End of Mount Damāwand**Lines 12–19:** Mount 'Rubwa'**Lines 20–25:** Mount 'Raḍwā'

FOL. 58r

Lines 1–3: End of Mount Raḍwā**Lines 4–17:** Mount 'Raḳīm' and illustration (cat. 119)

FOL. 58v

Lines 1–3: End of Mount Raḳīm**Lines 4–7:** Mount 'Zānik'**Lines 8–11:** Mount 'Zaghwān'**Lines 12–17:** Mount 'Sawā'**Lines 18–25:** Mount 'Sīlān'

FOL. 59r

Line 1: End of Mount Sīlān

Lines 2–5: Mount ‘Sarāḥ’
 Lines 6–8: ‘The Mountain of Sumac’ (*jabal al-summāq*)
 Lines 9–13: Mount of ‘Sirindīb’
 Lines 14–15: Mount of Samarqand
 Lines 16–18: ‘The Mountain of Poison’ (*jabal al-samm*)
 Lines 19–20: ‘The Mountain of Alum’ (*jabal al-shabb*)
 Lines 21–25: Mount ‘Shibām’

FOL. 59V

Lines 1–3: ‘The Mountain Dedicated to Baal’ (*jabal sharaf al-ba‘l*)
 Lines 4–6: Mount ‘Shiqqāq’
 Lines 7–9: Mount ‘Shakrān’
 Lines 10–12: ‘The Mountain of the Images’ (*jabal al-ṣuwar*)
 Lines 13–17: Mount of ‘al-Ṣafā’¹⁵
 Lines 18–24: ‘The Mountain of Sicily’ [Mount Etna] (*jabal ṣiqilliyya*)
 Line 25: ‘The Mountains of the Two Ribs’ (*jabalā al-ḍil‘ayn*)

FOL. 60R

Lines 1–4: End of the Mountains of the Two Ribs
 Lines 5–7: Mount ‘Ṭāriq’
 Lines 8–11: ‘The Mountain of Clear [Water]’ (*jabal [al-mā‘] al-ṭāhira*)
 Lines 12–14: The Mountains of Ṭabaristān
 Lines 15–18: Mount ‘Ṭūr Sinā’
 Lines 19–25: Mount ‘Ṭūr Harūn’

FOL. 60V

Line 1: End of Mount Ṭūr Harūn
 Lines 2–9: ‘The Mountain of the Bird’ (*jabal al-ṭayr*)
 Lines 10–11: Mount ‘Ghazwān’
 Lines 12–13: Mounts ‘Ghuwayr wa Kusayr’
 Lines 14–15: The Mountains of Farghāna
 Lines 16–17: Mount ‘Filiwān’
 Lines 18–20: Mount ‘Qāsiyūn’
 Lines 21–22: Mount ‘Qāf’
 Line 23: Mount ‘Qidqid’
 Lines 24–25: Mount ‘Qaşrān’

FOL. 61R

Lines 1–2: ‘The Mountain of Antimony’ (*jabal al-kuḥl*)
 Line 3: The Mountain of Kirmān
 Lines 4–7: The Mountains of Kazakhstān
 Lines 8–9: Mount ‘Lārījān’
 Lines 10–12: The Mountains of Lebanon
 Lines 13–14: ‘The Magnetic Mountain’ (*jabal al-maghṇāṭīs*)
 Lines 14–16: Mount ‘Muwrijān’
 Lines 16–17: ‘The Mountain of Fire’ (*jabal al-nār*)
 Lines 18–19: Mount ‘Nihāwand’
 Lines 20–21: The Mountain of Hormuz
 Lines 22–24: The Mountains of India [the Himalayas]
 Lines 24–25: The Mountain of Wāsiṭ

FOL. 61V

Lines 1–3: End of the Mountain of Wāsiṭ**Lines 4–5: Mount ‘Yāk’****Lines 6–18: ‘The Paragraph on the Origin of the Rivers’** (*faṣl fī tawallud al-anhār*)**Lines 19–25: The River Volga** (*nahr itl*)

Probably three folios missing (Munich Qazvīnī: 2 fols + 19 lines) including: the end of the River Volga, twenty-three rivers and the beginning of the River Qawraj.

FOL. 62R

Lines 1–4: End of the River ‘Qawraj’**Lines 5–12: The River ‘Kurr’****Lines 13–17: The River ‘Malik’****Lines 18–22: The River Indus** (*nahr mihrān*)**Lines 22–24: The River ‘Mukrān’****Lines 24–25: The River Nile** (*nahr nīl*)

FOL. 62V

Lines 1–25: Continuation of the River Nile and illustration (cat. 120)

FOL. 63R

Lines 1–17: End of the River Nile**Lines 18–19: The River ‘Hindmand’****Lines 19–21: The River ‘Yaman’****Lines 21–25: ‘The Paragraph on the Origin of Springs and Wells’** (*faṣl fī tawallud al-‘uyūn wa al-ābār*)

FOL. 63V

Lines 1–7: End of the introductory text on the Origin of Springs and Wells**Lines 7–9: The Spring of Azerbaijan****Lines 9–13: The Spring of ‘Ardabīhishtak’****Lines 14–15: The Spring of Alexandria****Lines 16–18: The Spring of ‘Īlābistān’ and illustration** (cat. 121)

FOL. 64R

Line 1: End of the Spring of Īlābistān**Lines 2–5: The Spring of ‘Bādikhānī’****Lines 5–7: The Spring of Bāmiyān****Lines 7–9: ‘The Spring of the Cow’** (*‘ayn al-baqar*)**Lines 10–11: The Spring of ‘Jāj’****Lines 12–13: The Spring of ‘Jājarm’****Lines 14–15: The Springs of the Mountains of ‘Subrān’****Lines 16–17: The Spring of Malaṭya****Lines 17–19: The Spring of Dārāb****Lines 19–22: The Springs of Dawrāq**

Lines 23–24: The Spring of ‘Ra’s al-Na‘ūr’
 Line 25: The Spring of ‘Nihāwand’ [Zarāwand]¹⁶

FOL. 64V

Lines 1–2: End of the Spring of ‘Nihāwand’
 Lines 3–4: The Spring of ‘Zaghr’
 Lines 4–7: The Spring of ‘Siyāh Sank’
 Lines 8–12: The Spring of ‘Sumayram’
 Lines 12–14: The Spring of ‘Shīrkirān’
 Lines 14–15: ‘The Spring of Tiberias’ (*‘ayn ṭabariya*)
 Lines 16–18: ‘The Spring of the Eagle’ (*‘ayn al-‘uqāb*)
 Lines 18–23: ‘The Spring of Granada’ (*‘ayn gharnāṭa*)
 Lines 23–25: The Spring of ‘Ghazna’

FOL. 65R

Line 1: End of the Spring of Ghazna
 Line 2: ‘The Spring of the Euphrates’ (*‘ayn al-furāt*)
 Lines 3–4: The Spring of ‘Furāwir’
 Lines 4–5: The Spring of ‘Qayyāra’
 Lines 6–13: The Spring of ‘Wādī al-Mushaqqaq’
 Lines 13–17: The Spring of ‘Mankūr’
 Lines 17–18: The Spring of ‘Munya Hishām’
 Lines 19–20: ‘The Spring of Fire’ (*‘ayn al-nār*)
 Lines 21–23: The Spring of ‘Naṭūl’
 Lines 23–25: The Spring of ‘Nihāwand’

FOL. 65V

Line 1: End of the Spring of Nihāwand
 Lines 2–6: The Spring of [the River] ‘Hirmās’
 Lines 7–16: ‘The Spring of Sorrow’ (*‘ayn al-hamm*)
 Lines 16–18: The Spring of ‘Yāsī Ḥamr’
 Lines 19–21: The Spring of ‘Iyl’
 Lines 22–23: The Section ‘On the Wells’ (*ammā al-ābār*)
 Line 24: The Well of ‘Abū Kanūd’

FOL. 66R

Line 1: End of the Well of Abū Kanūd
 Lines 2–10: The Well of ‘Bābil’ and illustration (cat. 122)
 Lines 11–14: The Well of ‘Badr’

FOL. 66V

Line 1: End of the Well of Badr
 Lines 2–7: The Well of ‘Barhūt’
 Lines 8–11: The Well of ‘Buḍā’a’
 Lines 12–13: The Well of ‘Bijan’
 Lines 14–15: The Well of ‘Fanṣūra’
 Lines 16–18: The Well of ‘Junbudhuq’
 Lines 19–20: The Well of ‘Damāwand’
 Lines 21–25: The Well of ‘Dharwān’

FOL. 67r

Lines 1–2: End of the Well of Dharwān**Lines 3–19: The Well of ‘Zamzam’****Lines 20–21: The Well of ‘Ṣāhik’****Lines 22–24: The Well of ‘Urwa’****Line 25: The Well of ‘Ghars’**

FOL. 67v

Line 1: End of the Well of Ghars**Lines 2–3: ‘The Well of the Village of ‘Abd al-Raḥmān’** (*bi’r qaryat ‘abd al-raḥmān*)**Lines 4–7: ‘The Well of the Dog’** (*bi’r al-kalb al-kalb* [sic])**Lines 8–13: The Well of ‘Maṭariyya’****Lines 14–15: The Wells of Nishapur****Lines 16–17: The Well of ‘Hindiyyān’****Lines 18–21: ‘The Well of Joseph the Honest’** (*bi’r yūsuf al-ṣiddīq*)**Lines 22–24: ‘The Chapter on Creatures, or Those Born from Mothers’** (*al-naẓar fī al-kā’ināt wa hiya al-aṣām al-mutawallada min al-ummahāt*)

FOL. 68r

Lines 1–8: End of the introductory text on Creatures**Lines 9–25: ‘The First Chapter on Minerals’**¹⁷ (*al-naẓar al-awwal fī al-ma’diniyyāt*)

FOL. 68v

Lines 1–7: End of the introductory text on Minerals**Lines 8–20: ‘The First Type [of Mineral], the Metals’** (*al-naw‘ al-awwal fī al-filizzāt*)**Lines 20–24: ‘Gold’** (*al-dhahab*)

FOL. 69r

Lines 1–11: End of Gold**Lines 11–18: ‘Silver’** (*al-fiḍḍa*)**Lines 18–22: ‘Copper’** (*al-nuḥās*)**Lines 22–25: ‘Iron’** (*al-ḥadīd*)

FOL. 69v

Lines 1–4: End of Iron**Lines 5–9: ‘Red Lead’** (*al-raṣāṣ*)**Lines 10–14: ‘White Lead’**¹⁸ (*al-usrūb*)**Lines 15–18: ‘Zinc’** (*al-khārasīnī*)**Lines 19–22: ‘The Second Type [of Mineral], the Stones’** (*al-naw‘ al-thānī fī al-aḥjār*)**Lines 23–24: ‘The First Subdivision’** (*al-qism al-awwal*)

Probably four folios missing (Munich Qazvīnī: 4 fols + 4 lines) including: the end of the First Subdivision, the Second Subdivision and text on forty-nine Stones, from ‘Antimony’ (*ithmid*) to the ‘Stone of Rain’ (*ḥajar al-maṭar*).

FOL. 70R

Lines 1–2: ‘The Stone [. . .] of the She-Camel’ (*ḥajar* [. . .] *al-nāqa*)**Line 3: ‘The Stone that Is Born inside [the Body of a] Man’** (*ḥajar yatawalladu fī al-insān*)**Line 4: ‘The Stone that Is Born in Stagnant Water’** (*ḥajar yatawal-ladu fī al-mā’ al-rakīd*)**Lines 4–6: ‘The Stone of Desire’** (*ḥajar al-ḥirs*)**Lines 6–9: ‘Iron Dross’** (*ḥajar ḥawsāyy*)**Lines 9–11: ‘Clay Dross’** (*ḥajar khabath al-ṭīn*)**Lines 12–13: The Stone Called ‘Iblis’s Testicle’**¹⁹**Lines 13–25: ‘The Pearl’** (*ḥajar al-durr*)

FOL. 70V

Lines 1–5: End of the Pearl**Lines 5–14: ‘Malachite’** (*ḥajar dahnaj*)**Lines 14–15: A Black Stone Called ‘Dīmāṭī’****Lines 15–17: ‘Marble’** (*ḥajar rukhām*)**Lines 17–19: A Magic Stone Called ‘Ruqūsh’****Lines 19–25: ‘Vitriols’** (*ḥajar al-zājāt*)

FOL. 71R

Line 1: End of Vitriols**Lines 1–5: ‘Meerschaum’** (*ḥajar zabad al-bahr*)**Lines 6–10: ‘Glass or Obsidian’** (*ḥajar al-zajāj*)**Lines 10–16: ‘Arsenic’** (*ḥajar al-zarnīkh*)**Lines 17–20: ‘Verdigris’** (*ḥajar al-zinjār*)**Lines 20–24: ‘Cinnabar’** (*ḥajar al-zunjuf*)**Lines 24–25: ‘Jet’** (*ḥajar al-sabaj*)

FOL. 71V

Lines 1–3: End of Jet**Lines 3–7: A Stone Called ‘Salsīs’****Lines 7–9: ‘Emery’** (*ḥajar sunbādhaj*)**Lines 9–12: ‘Haematite’** (*ḥajar shādhanaj*)**Lines 12–17: ‘Alum’** (*ḥajar shabb*)**Lines 17–22: ‘Sea-Shell’** (*ḥajar al-ṣadaf*)**Lines 23–25: ‘The Stone that Drives Sleep Away’** (*ḥajar ṭārid al-nawm*)²⁰

FOL. 72R

Lines 1–4: A Stone Called ‘Ṭāliqūn’**Lines 5–7: ‘Talc [or Mica]’** (*ḥajar ṭalq*)²¹**Lines 7–10: A Stone Called ‘Ṭūsūṭūs’****Lines 10–15: ‘Carnelian’** (*ḥajar ‘aqīq*)**Lines 15–18: ‘Ambergris’** (*‘anbarī*)**Lines 18–19: ‘Amethyst’** (*‘aṭās*)**Lines 20–25: ‘Bezoar’** (*fādzahr*)

FOL. 72V

Lines 1–5: End of Bezoar

Lines 5–10: A Stone Called ‘Farsalūs’
 Lines 10–12: A Stone Called ‘Furṭāsyā’
 Lines 12–13: A Stone Called ‘Farqūs’
 Lines 13–17: ‘Turquoise’ (*fīrūzaj*)
 Lines 17–21: A Stone Called ‘Faylaqūs’
 Lines 22–24: A Stone Called ‘Fahār’
 Lines 24–25: A Stone Called ‘Qaryāṭīsūn’

FOL. 73R

Line 1: End of ‘Qaryāṭīsūn’
 Lines 1–4: A Stone Called ‘Qurūm’
 Line 4: ‘White Vitriol’ (*qalqadīs*)
 Lines 5–6: ‘Yellow Vitriol’ (*ḥajar qalqaṭār*)
 Lines 6–11: ‘Green Vitriol’ (*ḥajar qalqand*)
 Lines 11–13: ‘Soda’ (*ḥajar qilī*)
 Lines 13–16: ‘Pumice’ (*ḥajar qaysūr*)
 Lines 16–17: A Stone Called ‘Qīrāṭīr’
 Lines 17–20: A Stone Called ‘Karsyād’
 Lines 20–25: A Stone Called ‘Karsyān’
 Line 25: A Stone Called ‘Karak’

FOL. 73V

Lines 1–2: End of ‘Karak’
 Lines 2–4: A Stone Called ‘Karmanī’
 Lines 4–8: ‘Amber’ (*ḥajar kahrabā*)
 Lines 8–11: ‘Lapis lazuli’ (*ḥajar lāzward*)
 Lines 11–14: ‘The Gold Magnet’ (*lāqīṭ al-dhahab*)
 Lines 14–16: ‘The Lead Magnet’ (*lāqīṭ al-raṣāṣ*)
 Lines 16–20: ‘The Hair Magnet’ (*lāqīṭ al-shiʿr*)
 Lines 21–24: ‘The Wool Magnet’ (*lāqīṭ al-ṣūf*)
 Lines 24–25: ‘The Bone Magnet’ (*lāqīṭ al-ʿazm*)

FOL. 74R

Lines 1–3: ‘The Silver Magnet’ (*lāqīṭ al-fidḍa*)
 Lines 4–5: ‘The Cotton-Magnet’ (*lāqīṭ al-quṭn*)
 Lines 6–7: A Stone Called ‘Luḥāghīṭūs’
 Lines 7–18: ‘Diamond’ (*ḥajar al-mās*)
 Lines 18–20: A Stone Called ‘Mānṭīs’
 Lines 20–22: ‘Rock Crystal’ [?] (*māhānī*)
 Lines 22–24: A Stone Called ‘Mirād’
 Line 25: ‘Coral’ (*marjān*)

FOL. 74V

Lines 1–7: End of Coral
 Lines 7–11: ‘Litharge’ (*murdāsanj*)²²
 Lines 11–19: ‘Marcasite’ (*marqashīthā*)
 Lines 19–21: ‘Emery’ (*misann*)
 Lines 22–25: ‘The Stone that Facilitates Birth’ (*mushil al-wilāda*)

FOL. 75r

Line 1: End of the Stone that Facilitates Birth**Lines 1–12: ‘Loadstone’** (*maghnātīs*)**Lines 13–20: ‘Salt’** (*milḥ*)**Lines 20–23: ‘Natron’** (*naṭrūn*)**Lines 23–25: A Stone from ‘Nubia’** (*nūbī*)

FOL. 75v

Lines 1–2: End of the Stone from Nubia**Lines 2–6: ‘Quicklime’** (*nūra*)**Lines 6–11: ‘Ammonia’** (*nūshādir*)**Lines 11–13: A Stone Called ‘Hādī’****Lines 13–22: ‘Hyacinth’** (*yāqūt*)**Lines 22–23: ‘Jasper’** (*yashb*)**Lines 23–25: A Stone Called ‘Yaqṭān’**

FOL. 76r

Lines 1–10: ‘The Third Section on Oily Substances’ (*al-qism al-thālith fī al-aṣām al-duhniyya*)**Lines 10–20: ‘Quicksilver’** (*al-zī’baq*)**Lines 20–25: ‘Sulphur’** (*al-kibrīt*)

FOL. 76v

Lines 1–7: End of Sulphur**Lines 7–13: ‘Tar’** (*al-qīr*)**Lines 14–17: ‘Petroleum’** (*al-naft*)²³**Lines 17–20: ‘Asphalt [or Bitumen]’** (*al-mumyānī*)**Lines 20–25: ‘Ambergris’** (*al-‘anbar*)

FOL. 77r

Lines 1–3: End of Ambergris**Lines 4–14: ‘The Second Chapter on the Vegetable Kingdom’** (*al-nazar al-thānī fī al-nabāt*)**Lines 15–23: ‘The First Section on Trees’** (*al-qism al-awwal fī al-ashjār*)

FOL. 77v

Lines 1–7: End of the introductory text on Trees**Lines 7–13: ‘Ebony’** (*ābanūs*) **and illustration** (cat. 123)**Lines 14–21: ‘Myrtle’** (*ās*) **and illustration** (cat. 124)**Lines 22–25: ‘Citron’** (*utruj*)

FOL. 78r

Lines 1–12: End of the Citron and illustration (cat. 125)**Lines 13–20: ‘Plum’** (*ijjās*) **and illustration** (cat. 126)**Lines 20–24: ‘Melia Tree’** (*azādarakht*) **and illustration** (cat. 127)

FOL. 78v

Lines 1–4: ‘Gum Arabic Tree’ (*umm ghaylān*) **and illustration** (cat. 128)**Lines 5–9: ‘Moringa’** (*bān*) **and illustration** (cat. 129)

Lines 10–15: ‘Turpentine Tree’ (*buṭm*) and illustration (cat. 130)

Lines 16–21: ‘Balsam Tree’ (*balasān*)

FOL. 79R

Lines 1–10: End of the Balsam Tree and illustration (cat. 131)

Lines 10–18: ‘Oak’ (*ballūt*) and illustration (cat. 132)

Lines 19–25: ‘Apple’ (*tuffāḥ*) and illustration (cat. 133)

FOL. 79V

Lines 1–4: End of the Apple

Lines 5–14: ‘Spruce’ (*tannūb*) and illustration (cat. 134)

Lines 15–25: ‘Mulberry’ (*tūth*) and illustration (cat. 135)

FOL. 80R

Lines 1–20: ‘Fig’ (*tīn*) and illustration (cat. 136)

Lines 20–25: ‘Sycamore Fig’ (*jummayz*) and illustration (cat. 137)

FOL. 80V

Lines 1–15: ‘Walnut’ (*jawz*) and illustration (cat. 138)

Lines 16–18: The Tree Called ‘Khusruw Dār’ and illustration (cat. 139)

Lines 19–25: ‘Castor Oil’ (*khirwaʿ*) and illustration (cat. 140)

FOL. 81R

Lines 1–7: ‘Willow’ (*khilāf*) and illustration (cat. 141)

Lines 8–17: ‘Peach’ (*khawkh*) and illustration (cat. 142)

Lines 18–25: ‘Spiny Cytisus’ (*dār shayshiʿān*) and illustration (cat. 143)

FOL. 81V

Lines 1–10: ‘Elm’ (*dardār*) and illustration (cat. 144)

Lines 11–18: ‘Plane’ (*dulb*) and illustration (cat. 145)

Lines 19–25: ‘Laurel’ (*dahmast*) and illustration (cat. 146)

FOL. 82R

Lines 1–3: End of the Laurel

Lines 4–25: ‘Pomegranate’ (*rummān*) and illustration (cat. 147)

FOL. 82V

Lines 1–4: End of the Pomegranate

Lines 5–25: ‘Olive’ (*zaytūn*) and illustration (cat. 148)

FOL. 83R

Lines 1–2: End of the Olive

Lines 3–13: Title of ‘Coconut’ [*sic*] (*shajar jawz al-hind*) and text of ‘Cypress’ (*ṣarw*) and illustration (cat. 149)

Lines 14–25: ‘Quince’ (*safarjal*) and illustration (cat. 150)

FOL. 83V

Lines 1–2: End of the Quince

Lines 3–7: ‘Sumac’ (*summāq*) and illustration (cat. 151)

Lines 8–15: ‘Sandarach’ (*sandarās*) and illustration (cat. 152)

Lines 16–25: The Tree Called ‘Shabāb’ and illustration (cat. 153)

FOL. 84r

Lines 1–7: ‘Chestnut’ (*shāhballūt*) and illustration (cat. 154)

Lines 7–12: ‘Sandalwood’ (*ṣandal*) and illustration (cat. 155)

Lines 13–23: ‘Pine’ (*ṣanawbar*) and illustration (cat. 156)

FOL. 84v

Lines 1–3: End of the Pine

Lines 3–9: ‘Lentiscus’ (*ḍirw*) and illustration (cat. 157)

Lines 9–17: ‘Tamarisk’ (*ṭarfā*) and illustration (cat. 158)

Lines 18–25: ‘Juniper’ (*ʿarʿar*) and illustration (cat. 159)

FOL. 85r

Lines 1–9: ‘Mudar Plant’ (*ʿushār*) and illustration (cat. 160)

Lines 9–17: ‘Gall Oak’ (*ʿafṣ*) and illustration (cat. 161)

Lines 18–25: ‘Jujube’ (*ʿunnāb*) and illustration (cat. 162)

FOL. 85v

Lines 1–6: ‘Service Tree’ (*ghubayra*) and illustration (cat. 163)

Lines 7–14: ‘Poplar’ (*gharab*) and illustration (cat. 164)

Lines 15–22: ‘Peony’ (*fawāniyya*)

Lines 23–25: ‘Pistachio’ (*fustūq*) and illustration (cat. 165)

FOL. 86r

Lines 1–2: End of the Pistachio

Lines 3–17: ‘Pepper’ (*filfil*) and illustration (cat. 166)

Lines 17–25: ‘Hazelnut’ (*fundūq*) and illustration (cat. 167)

FOL. 86v

Lines 1–9: ‘Lycium’ (*ḥilzahraj*) and illustration (cat. 168)

Lines 9–16: ‘Clove’ (*qaranful*) and illustration (cat. 169)

Lines 17–24: ‘Reed’ (*qaṣab*) and illustration (cat. 170)

FOL. 87r

Lines 1–10: End of the Reed

Lines 11–19: ‘Camphor’ (*kāfūr*) and illustration (cat. 171)

Lines 19–25: ‘Grape Vine’ (*karm*) and illustration (cat. 172)

FOL. 87v

Lines 1–25: Continuation of the Grape Vine

FOL. 88r

Lines 1–6: End of the Grape Vine

Lines 7–15: ‘Pear’ (*kummathrā*) and illustration (cat. 173)

Lines 15–17: ‘Euphorbia’ (*lāʿiya*)

Lines 18–25: ‘Frankincense’ (*lubān*) and illustration (cat. 174)

FOL. 88v

Lines 1–12: ‘Almond’ (*lawz*) and illustration (cat. 175)

Lines 13–25: ‘Lemon’ (*laymūn*) and illustration (cat. 176)

FOL. 89r

Lines 1–20: End of the Lemon and illustration (cat. 177)

Lines 20–25: ‘Apricot’ (*mishmish*) and illustration (cat. 178)

FOL. 89V

Lines 1–7: End of the Apricot**Lines 7–15: ‘Banana’** (*mawz*) **and illustration** (cat. 179)**Lines 16–20: ‘Orange’** (*nāranj*) **and illustration** (cat. 180)**Lines 21–24: ‘Coconut Palm’** (*narjīl*) **and illustration** (cat. 181)

FOL. 90R

Lines 1–2: End of the Coconut Palm**Lines 2–11: ‘Syrian Christ-Thorn’** (*nabīq*) **and illustration** (cat. 182)**Lines 11–25: ‘Date Palm’** (*nakhl*) **and illustration** (cat. 183)

FOL. 90V

Lines 1–10: End of the Date Palm**Lines 11–23: ‘Rose’** (*ward*) **and illustration** (cat. 184)**Lines 23–25: ‘Jasmine’** (*yasmīn*) **and illustration** (cat. 185)

FOL. 91R

Lines 1–2: End of the Jasmine**Lines 3–23: ‘The Second Section [of the Vegetable Kingdom] on Plants’** (*al-qism al-thānī min al-nabāt al-shajar* [sic])**Lines 23–24: ‘Pimpernel’** (*adhān al-fār*) **and illustration** (cat. 186)

FOL. 91V

Line 1: End of the Pimpernel**Lines 1–7: ‘Calendula’** (*adhariyūn*) **and illustration** (cat. 187)**Lines 8–11: ‘Lemongrass’** (*idhkhīr*) **and illustration** (cat. 188)**Lines 12–17: ‘Rice’** (*aruzz*) **and illustration** (cat. 189)**Lines 18–21: ‘Spinach’** (*isfanāj*) **and illustration** (cat. 190)**Lines 22–25: ‘Squill’** (*isqīl*) **and illustration** (cat. 191)

FOL. 92R

Lines 1–3: End of the Squill**Lines 3–6: ‘Thistle’** (*ushturghāz*) **and illustration** (cat. 192)**Lines 7–11: ‘Soda Plant’** (*ushnān*) **and illustration** (cat. 193)**Lines 12–16: ‘Absinth’** (*afsinṭīn*) **and illustration** (cat. 194)**Lines 17–21: ‘Chrysanthemum’** (*uqḥuwān*) **and illustration** (cat. 195)**Lines 21–25: ‘Flax’** (*ukshūt*) **and illustration** (cat. 196)**Line 25: ‘Camomile’** (*bābūnaj*)

FOL. 92V

Lines 1–2: End of the Camomile**Lines 2–6: ‘Balm’** (*bādhhrānjabwiyā*) **and illustration** (cat. 197)**Lines 7–13: ‘Basil’** (*bādhhrūj*) **and illustration** (cat. 198)**Lines 13–21: ‘Eggplant’** (*bādhhinjān*) **and illustration** (cat. 199)**Lines 21–25: ‘Fava Bean’** (*bāqilā*) **and illustration** (cat. 200)

FOL. 93R

Lines 1–5: End of the Fava Bean**Lines 6–13: ‘Maidenhair Fern’** (*barsiyāwashān*) **and illustration** (cat. 201)

Lines 13–18: ‘Mugwort’ (*baranjasaf*) and illustration (cat. 202)

Lines 18–25: ‘Onion’ (*baṣal*) and illustration (cat. 203)

FOL. 93V

Lines 1–6: End of the Onion

Lines 7–21: ‘Melon’ (*biṭṭīkh*) and illustration (cat. 204)

Lines 22–25: ‘Violet’ (*banafsaj*) and illustration (cat. 205)

FOL. 94R

Lines 1–2: The Aconite Called ‘Būdabīsh’ [?]

Lines 2–4: ‘Adonis’ (*bahār*) and illustration (cat. 206)

Lines 4–12: ‘Aconite’ (*bīsh*) and illustration (cat. 207)

Lines 12–19: ‘Lupine’ (*tirmīs*) and illustration (cat. 208)

Lines 19–25: ‘Garlic’ (*thūm*) and illustration (cat. 209)

FOL. 94V

Lines 1–9: End of the Garlic

Lines 10–15: ‘Millet’ (*jāwars*) and illustration (cat. 210)

Lines 15–23: ‘Rocket’ (*jirjīr*) and illustration (cat. 211)

Lines 23–25: ‘Carrot’ (*jazar*) and illustration (cat. 212)

FOL. 95R

Line 1: End of the Carrot

Lines 2–8: ‘Manna’ (*ḥājj*) and illustration (cat. 213)

Lines 8–10: ‘Thyme’ (*ḥāshā*) and illustration (cat. 214)

Lines 11–15: ‘Cress’ (*ḥurf*) and illustration (cat. 215)

Lines 16–19: ‘Cardoon’ or ‘Artichoke’ (*ḥarshāf*) and illustration (cat. 216)

Lines 20–24: ‘Harmel’ (*ḥarmal*) and illustration (cat. 217)

FOL. 95V

Lines 1–2: End of the Harmel

Lines 3–7: ‘Caltrops’ (*ḥasak*) and illustration (cat. 218)

Lines 8–14: ‘Fenugreek’ (*ḥulba*) and illustration (cat. 219)

Lines 14–20: ‘Chick-pea’ (*ḥimmās*) and illustration (cat. 220)

Lines 20–25: ‘Melilot’ (*ḥandaqūqī*) and illustration (cat. 221)

FOL. 96R

Lines 1–13: ‘Colocynth’ (*ḥanzal*) and illustration (cat. 222)

Lines 13–22: ‘Wheat’ (*ḥiṭa*) and illustration (cat. 223)

Lines 22–25: ‘Mallow’ (*khubbāzī*) and illustration (cat. 224)

FOL. 96V

Line 1: End of the Mallow

Lines 2–11: ‘Hellebore’ (*kharbaq*) and illustration (cat. 225)

Lines 12–18: ‘Mustard’ (*khardal*) and illustration (cat. 226)

Lines 19–25: ‘Lettuce’ (*khass*) and illustration (cat. 227)

Probably eight folios missing (Munich Qazvīnī: 7 fols + 17 lines) including: the second part of the text on the Lettuce, fifty-four plants and herbs from the ‘Poppy’ (*khāshkhāsh*) to a variety of Vetch called ‘Kirsannā’, and beginning of the text on ‘Celery’ (*karafs*).

FOL. 97r

Lines 1–4: End of the ‘Celery’ (*karafs*)**Lines 4–6: ‘Caraway’ (*karawiyyā*) and illustration (cat. 228)****Lines 7–16: ‘Coriander’ (*kuzbura*) and illustration (cat. 229)****Lines 16–18: A Flea-Expeller Called ‘Kakwāsha’****Lines 18–23: ‘Cumin’ (*kammūn*) and illustration (cat. 230)****Lines 23–25: ‘Truffle’ (*kumāʾ*)**

FOL. 97v

Lines 1–4: End of the Truffle**Lines 4–7: ‘Ivy’ (*lablāb*) and illustration (cat. 231)****Lines 8–12: ‘Plantago’ (*lisān al-ḥamal*)****Lines 13–14: ‘Sparrow’s Tongue’ (*lisān al-ʿasāfir*) and illustration (cat. 232)****Lines 14–19: ‘Caper’ (*laṣaf*) and illustration (cat. 233)****Lines 20–25: ‘Mandrake’ (*luffāḥ*) and illustration (cat. 234)**

FOL. 98r

Lines 1–3: End of the Mandrake**Lines 3–5: ‘Lubia Bean’ (*lūbiyā*) and illustration (cat. 235)****Lines 6–8: ‘Water Lily’ (*laynāfir*) and illustration (cat. 236)****Lines 9–10: ‘Mung Bean’ (*māsh*)****Lines 11–22: ‘Mezereon’ (*māzariyūn*)****Lines 23–25: ‘Mullein’ (*māhizharaj*) and illustration (cat. 237)**

FOL. 98v

Line 1: End of the Mullein**Lines 2–6: ‘Marjoram’ (*marzanjūsh*) and illustration (cat. 238)****Lines 7–9: ‘Nard’ or ‘Valerian’ (*nārdīn*) and illustration (cat. 239)****Lines 10–16: ‘Anise’ (*nānkhawāḥ*) and illustration (cat. 240)****Lines 16–25: ‘Narcissus’ (*narjis*) and illustration (cat. 241)**

Probably twenty-four folios missing (Munich Qazvīnī: 23 fols + 11 lines) including: the end of the Narcissus, the last six plants of the Vegetable Kingdom, the introduction to the Third Chapter on Animals, the First Species of Animals, Man, subdivided into six ‘Chapters’ (*naẓar*), seventeen ‘Sections’ (*faṣl*), and numerous ‘Sub-sections’ (*qism*, *nawʿ*, *ṣanf*), the introductory text on the Second Species of Animals, the Jinns, one ‘Section’ (*faṣl*) on the strange nature of Jinns and the beginning of the ‘Section on Certain Demons’ (*faṣl fī dhikr baʿḍ al-mutashayṭana*) with the text on the Female Jinn Called ‘Silʿāʾa’.

FOL. 99r

Lines 1–2: End of the Female Jinn Called ‘Silʿāʾa’**Lines 2–5: The Jinn Called ‘Ghaddār’****Lines 5–10: The Jinn Called ‘Dilhāth’ and illustration (cat. 242)****Lines 11–23: The Jinn Called ‘Shiqq’ and illustration (cat. 243)****Lines 24–25: The Jinn Called ‘Mudhahhab’**

FOL. 99V

Lines 1–3: End of the Jinn Called ‘Mudhahhab’

Lines 3–14: ‘The Chapter on Strange Stories Concerning the Jinns’
(*faṣl fī hikā’yāt ‘ajība min al-jinn*) and illustration (cat. 244)

FOL. 100R

Lines 1–11: Continuation of the Stories of the Jinns and illustration
(cat. 245)

FOL. 100V

Lines 1–15: Continuation of the Stories of the Jinns and illustrations
(cat. 246–7)

FOL. 101R

Lines 1–25: Continuation of the Stories of the Jinns and illustrations
(cat. 248–9)

FOL. 101V

Lines 1–19: Continuation of the Stories of the Jinns and illustrations
(cat. 250–1)

FOL. 102R

Lines 1–25: Continuation of the Stories of the Jinns and illustrations
(cat. 252–3)

FOL. 102V

Lines 1–20: End of the Stories of the Jinns and illustration (cat. 254)

Lines 21–24: ‘The Third Species of Animals, the Riding Animals’
(*al-naw‘ al-thālith min al-ḥayawān / al-dawābb*)

FOL. 103R

Lines 1–10: End of the introduction on the Riding Animals

Lines 10–25: ‘Horse’ (*faras*) and illustration (cat. 255)

FOL. 103V

Lines 1–6: End of the Horse²⁴

Lines 7–23: ‘Mule’ (*baghl*) and illustration (cat. 256)

Lines 23–25: ‘Donkey’ (*ḥimār*)

FOL. 104R

Lines 1–24: End of the Donkey and illustration (cat. 257)

Lines 24–25: ‘Onager’ (*ḥimār al-waḥsh*) and illustration (cat. 258)

FOL. 104V

Lines 1–11: End of the Onager

Lines 12–24: ‘The Fourth Species of Animals, the Grazing Livestock’
(*al-naw‘ al-rābi‘ min al-ḥayawān / al-na‘ām*)

FOL. 105R

Lines 1–2: End of the introductory text on Grazing Livestock

Lines 3–25: ‘Bactrian Camel’ (*ibl*) and illustration (cat. 259)

FOL. 105V

Lines 1–4: End of the Camel

Lines 4–25: ‘Cow’ (*baqar*) and illustration (cat. 260)

One folio missing including: the end of the Cow, 'Wild Cow' (*baqar al-wahsh*), 'Buffalo' (*jāmūs*), 'Giraffe' (*zarāfa*) and beginning of 'Sheep' (*da'n*).

FOL. 106r

Lines 1–14: End of the 'Sheep' (*da'n*)

Lines 15–25: 'Goat' (*ma'z*) and illustration (cat. 261)

FOL. 106v

Lines 1–18: End of the Goat

Lines 19–25: 'Gazelle' (*ḡabī*) and illustration (cat. 262)

FOL. 107r

Lines 1–6: End of the Gazelle

Lines 6–23: 'Steinbock' (*ayyīl*) and illustration (cat. 263)

Lines 24–25: 'The Fifth Species of Animals, the Predatory Animals' (*al-naw' al-khāmis min al-ḡayawān / al-sibā'*)

FOL. 107v

Lines 1–8: End of the introductory text on the Predatory Animals

Lines 8–21: 'Jackal' (*ibn āwā*) and illustration (cat. 264)

Lines 21–25: 'Weasel' (*ibn 'irs*) and illustration (cat. 265)

FOL. 108r

Lines 1–9: End of the Weasel

Lines 9–23: 'Hare' (*arnab*) and illustration (cat. 266)

Lines 23–25: 'Lion' (*asad*)

FOL. 108v

Lines 1–25: Continuation of the Lion and illustration (cat. 267)

One folio missing including: the end of the Lion, 'Tiger' (*babr*) and 'Fox' (*tha'lab*).

FOL. 109r

Line 1: End of the 'Fox' (*tha'lab*)

Lines 1–8: 'Unicorn' (*ḡarīsh*) and illustration (cat. 268)

Lines 8–25: 'Wild Boar' (*khinzīr*) and illustration (cat. 269)

FOL. 109v

Lines 1–5: End of the Wild Boar

Lines 5–25: 'Bear' (*dubb*) and illustration (cat. 270)

FOL. 110r

Lines 1–12: 'Marten' (*dalaq*) and illustration (cat. 271)

Lines 12–25: 'Wolf' (*dhi'b*) and illustration (cat. 272)

FOL. 110v

Lines 1–17: End of the Wolf

Lines 17–25: The Animal Called 'Sinād' and illustration (cat. 273)

One folio missing including: the end of the Sinād, 'Squirrel' (*sinjāb*), 'Cat' (*sinnawr*), 'Wild Cat' (*sinnawr al-barr*) and the Animals Called 'Sīrānīs' and 'Shāh-dawār'.

FOL. I I I I

Lines 1–25: 'Hyaena' (*dabu'*) and illustration (cat. 274)

FOL. I I I V

Lines 1–5: End of the Hyaena

Lines 5–12: 'Caracal' (*'anaq*) and illustration (cat. 275)

Lines 12–14: 'Polecat' [?] (*falā*)

Lines 14–25: 'Cheetah' (*fahd*) and illustration (cat. 276)

One folio missing including: the end of the Cheetah, 'Elephant' (*fil*) and beginning of 'Monkey' (*qird*).

FOL. I I 2 I

Lines 1–10: End of 'Monkey' (*qird*)

Lines 11–25: 'Rhinoceros' (*karkadann*) and illustration (cat. 277)

FOL. I I 2 V

Lines 1–25: End of the Rhinoceros

FOL. I I 3 I

Lines 1–25: 'Dog' (*kalb*) and illustration (cat. 278)

FOL. I I 3 V

Lines 1–19: End of the Dog

Lines 19–25: 'Leopard' (*namr*) and illustration (cat. 279)

FOL. I I 4 I

Lines 1–9: End of the Leopard

Lines 9–14: 'Roe Deer' or 'Stag' (*yamūr*)

Lines 15–24: 'The Sixth Species of Animals, the Birds' (*al-naw' al-sādis min al-hayawān / al-ṭuyūr*)

FOL. I I 4 V

Lines 1–13: End of the introduction on the Birds

Lines 13–18: 'Bishop Bird' or 'Finch' [?] (*abū barāqish*) and illustration (cat. 280)

Lines 19–25: 'Nightingale' (*abū harūn*) and illustration (cat. 281)

FOL. I I 5 I

Lines 1–15: 'Goose' (*awazz*) and illustration (cat. 282)

Lines 15–25: 'Goshawk' (*bāzī*) and illustration (cat. 283)

FOL. I I 5 V

Lines 1–11: End of the Goshawk

Lines 11–16: 'Sparrow Hawk' (*bāshiq*) and illustration (cat. 284)

Lines 17–25: 'Parrot' (*babbaghā*) and illustration (cat. 285)

FOL. 116R

Lines 1–3: End of the Parrot**Lines 3–11: ‘Bulbul’ or ‘Nightingale’ (*bulbul*) and illustration (cat. 286)****Lines 11–25: ‘Owl’ (*būm*) (cat. 287)**

FOL. 116V

Lines 1–6: End of the Owl**Lines 6–13: ‘Pheasant’ (*tadruj*) and illustration (cat. 288)****Lines 13–18: ‘Weaverbird’ (*tanawwuṭ*)****Lines 18–25: ‘Bustard’ (*hubārā*) and illustration (cat. 289)**

FOL. 117R

Lines 1–5: End of the Bustard**Lines 5–16: ‘Kite’ (*hidā’a*) and illustration (cat. 290)****Lines 16–25: ‘Pigeon’ (*hamām*) and illustration (cat. 291)**

FOL. 117V

Lines 1–20: End of the Pigeon**Lines 21–25: ‘Swallow’ (*khutṭāf*) and illustration (cat. 292)**

FOL. 118R

Lines 1–9: End of the Swallow**Lines 10–24: ‘Bat’ (*khuffāsh*) and illustration (cat. 293)****Lines 24–25: ‘Francolin’ (*durrāj*)**

FOL. 118V

Lines 1–10: End of the Francolin and illustration (cat. 294)**Lines 10–25: ‘Rooster’ (*dīk*) and illustration (cat. 295)**

FOL. 119R

Lines 1–11: End of the Rooster**Lines 11–25: ‘Hen’ (*dajāja*) and illustration (cat. 296)**

FOL. 119V

Lines 1–4: End of the Hen**Lines 5–17: ‘Egyptian Vulture’ (*rakhama*) and illustration (cat. 297)****Lines 17–25: ‘Rook’ (*zāgh*) and illustration (cat. 298)**

FOL. 120R

Lines 1–8: End of the Rook**Lines 8–17: ‘Starling’ (*zurzūr*) and illustration (cat. 299)****Lines 17–19: ‘Goshawk’ (*zummāj*) and illustration (cat. 300)****Lines 19–25: ‘Quail’ (*summānā*) and illustration (cat. 301)**

FOL. 120V

Lines 1–7: ‘Gerfalcon’ (*sunqur*) and illustration (cat. 302)**Lines 7–14: ‘Peregrine Falcon’ (*shāhīn*) and illustration (cat. 303)****Lines 14–20: ‘Turtle Dove’ (*shifnīn*) and illustration (cat. 304)****Lines 21–25: ‘Green Woodpecker’ (*shaqrāq*) and illustration (cat. 305)**

FOL. 121R

Lines 1–5: ‘Golden Oriole’ (*ṣāfir*) and illustration (cat. 306)

Lines 6–14: ‘Saker Falcon’ (*ṣaqr*) and illustration (cat. 307)

Lines 14–23: ‘Peacock’ (*tāwūs*) and illustration (cat. 308)

FOL. 121V

Lines 1–9: End of the Peacock

Lines 9–11: ‘Grouse’ (*ṭayhūj*) and illustration (cat. 309)

Lines 11–25: ‘Sparrow’ (*ʿuṣfūr*) and illustration (cat. 310)

FOL. 122R

Lines 1–3: End of the Sparrow

Lines 4–24: ‘Eagle’ (*ʿuqāb*) and illustration (cat. 311)

Lines 24–25: ‘Magpie’ (*ʿaqʿaq*)

FOL. 122V

Lines 1–9: End of the Magpie and illustration (cat. 312)

Lines 9–25: The Bird Called ‘Anqā’ and illustration (cat. 313)

FOL. 123R

Lines 1–9: End of the Bird Called ‘Anqā’

Lines 9–25: ‘Crow’ (*ghurāb*) and illustration (cat. 314)

FOL. 123V

Line 1: End of the Crow

Lines 2–13: ‘Crane’ (*gharnīq*) and illustration (cat. 315)

Lines 13–22: ‘Grebe’ or ‘Diver Bird’ (*ghawwāṣ*) and illustration (cat. 316)

Lines 23–25: ‘Collared Turtle Dove’ (*fākhita*) and illustration (cat. 317)

FOL. 124R

Line 1: End of the Collared Turtle Dove

Lines 1–14: ‘Partridge’ (*qabj*) and illustration (cat. 318)

Lines 15–22: ‘Crested Lark’ (*qunbura*) and illustration (cat. 319)

Lines 22–25: ‘Sand Grouse’ (*qaṭā*) and illustration (cat. 320)

FOL. 124V

Lines 1–6: End of the Sand Grouse

Lines 6–11: ‘Turtle Dove’ (*qumrī*) and illustration (cat. 321)

Lines 12–16: ‘Phoenix’ (*qūqīs*) and illustration (cat. 322)

Lines 17–25: ‘Crane’ (*kurkī*) and illustration (cat. 323)

FOL. 125R

Lines 1–2: End of the Crane

Lines 3–7: ‘Curlew’ (*karawān*) and illustration (cat. 324)

Lines 8–16: ‘White Stork’ (*laqlaq*) and illustration (cat. 325)

Lines 17–23: ‘Heron’ (*mālik al-ḥazīn*) and illustration (cat. 326)

Lines 24–25: ‘Hoopoe Lark’ (*mukkāʿ*) and illustration (cat. 327)

FOL. 125V

Lines 1–3: End of the Hoopoe Lark

Lines 3–17: ‘Vulture’ (*nasr*) and illustration (cat. 328)

Lines 17–25: ‘Ostrich’ (*na‘āma*) and illustration (cat. 329)

FOL. 126r

Lines 1–13: End of the Ostrich

Lines 13–25: ‘Hoopoe’ (*hudhud*) and illustration (cat. 330)

FOL. 126v

Lines 1–8: End of the Hoopoe

Lines 8–16: ‘Martin’ [?] (*waṭwāt*) and illustration (cat. 331)

Lines 17–18: ‘Firefly’ (*yarā‘a*)

Lines 19–24: ‘The Seventh Species of Animals, the Reptiles and Insects’ (*al-naw‘ al-sābi‘ min al-ḥayawān / al-hawāmm wa al-ḥaṣharāt*)

One folio missing including: the end of the introductory text on Reptiles and Insects, ‘Termite’ or ‘Woodworm’ (*arāḍa*), ‘Viper’ (*af‘a*), ‘Flea’ (*barghūth*) and beginning of the ‘Gnat’ or ‘Mosquito’ (*ba‘ūd*).

FOL. 127r

Lines 1–9: End of the ‘Gnat’ or ‘Mosquito’ (*ba‘ūd*)

Lines 9–16: ‘Dragon’ (*thu‘bān*) and illustration (cat. 332)

FOL. 127v

Lines 1–4: End of the Dragon

Lines 4–14: ‘Locust’ (*jirād*)

Lines 14–22: ‘Chameleon’ (*ḥirbā*) and illustration (cat. 333)

Lines 22–25: ‘Snail’ (*ḥalazūn*) and illustration (cat. 334)

FOL. 128r

Lines 1–4: End of the Snail

Lines 4–14: ‘Snake’ (*ḥayya*) and illustration (cat. 335)

FOL. 128v

Lines 1–19: End of the Snake

Lines 19–25: ‘Earthworms’ (*kharāṭīn*) and illustration (cat. 336)

One folio missing including: the end of Earthworms, ‘Dung Beetle’ or ‘Scarab’ (*khunfus*), ‘Silkworm’ (*dūdat al-qazz*), the Animal Called ‘Dīk al-jinn’, ‘Fly’ (*dhubāb*), ‘Spanish Fly’ or ‘Ladybug’ (*dhurrah*) and beginning of the ‘Tarantula’ (*rutaylā*).

FOL. 129r

Lines 1–3: End of the ‘Tarantula’ (*rutaylā*)

Lines 4–9: ‘Wasp’ (*zunbur*)

Lines 9–17: ‘Gecko’ (*sāmm abraṣ*) and illustration (cat. 337)

Lines 17–24: ‘Tortoise’ (*sulāḥfā*) and illustration (cat. 338)

Lines 24–25: ‘Cockroach’ (*ṣurṣūr*)

FOL. 129V

Line 1: End of the Cockroach**Lines 1–4: The Animal Called ‘Şannāja’ and illustration (cat. 339)**

One folio missing including: ‘Lizard’ (*dābb*), ‘Polecat’ [?] (*zarībān*), ‘Scorpion’ (*aqrab*) and beginning of the ‘Spider’ (*ʿankabūt*).

FOL. 130R

Lines 1–2: End of the ‘Spider’ (*ʿankabūt*)**Lines 3–25: ‘Mouse’ (*fār*) and illustration (cat. 340)****Line 25: The Mouse Called ‘Qarīnī’ [?]**

FOL. 130V

Lines 1–6: End of the Mouse Called ‘Qarīnī’ [?]**Lines 6–14: ‘Jerboa’ (*jarbūʿ*)****Lines 14–20: ‘Mole Rat’ (*khuld*) and illustration (cat. 341)****Lines 20–25: ‘Musk Rat’ (*fārat al-misk*) and illustration (cat. 342)****Line 25: ‘Salamander’ (*samandal*)**

Two folios missing including: end of the Salamander, ‘Butterfly’ (*firāsh*), ‘Bedbugs’ (*fasāfīs*), ‘Louse’ (*qaml*), ‘Hedgehog’ (*qunfudh*), the Insect Called ‘Nabr’, ‘Bee’ (*najl*) and beginning of the ‘Ant’ (*naml*).

FOL. 131R

Lines 1–17: End of the ‘Ant’ (*naml*)**Lines 18–25: ‘Monitor Lizard’ (*waral*) and illustration (cat. 343)**

FOL. 131V

Lines 1–4: End of the Monitor Lizard**Lines 5–7: ‘Conclusion on the Animals Endowed with a Strange Body’ (*khātima fī ḥayawānāt gharībat al-ashkāl*)****Line 8: ‘The First Part’ (*al-qism al-awwal*)****Lines 9–16: ‘The People of Gog and Magog’ (*ummat jūj wa mājūj*) and illustration (cat. 344)**

Two lines are missing due to damage to the text.

Lines 16–21: ‘The People Called “Munsuk”’ (*umma yaqūlu lahā munsuk*) and illustration (cat. 345)

FOL. 132R

Lines 1–2: ‘The People Living Near Iskandar’s Wall’ (*umma [. . .] bi-qurb sadd iskandar*) and illustration (cat. 346)**Lines 3–4: ‘The People of the Island of Sumatra’ (*umma [. . .] jazīrat zābaj*) and illustration (cat. 347)****Lines 5–6: ‘The People of the Island of Rāmnī’ (*ummat jazīrat al-rāmnī*) and illustration (cat. 348)**

FOL. 132V

Lines 1–2: ‘The People of Some Islands of the Sea of Zanj’ (*umma fī baḥr al-zanj fī ba‘d jazā’irihī*) and illustration (cat. 349)

Lines 3–4: ‘The Dog-headed People of Some Islands of the Sea of Zanj’ (*umma fī ba‘d jazā’ir baḥr al-zanj wujūhuhum wujūh al-kilāb*) and illustration (cat. 350)

Lines 5–12: ‘The People with No Bones in Their Legs’ (*umma [. . .] la ‘aẓm li-rijlayhim*) and illustration (cat. 351)

FOL. 133R

Lines 1–2: ‘The Winged People with Small Trunks’ (*umma [. . .] lahā aḥniḥā wa kharāṭīm daqīqa*) and illustration (cat. 352)

Lines 3–4: ‘The Horse-headed Winged People’ (*umma [. . .] dhāwat al-aḥniḥā [. . .] ru’ūsuhā ru’ūs al-khayl*) and illustration (cat. 353)

Line 5: ‘The People with Two Faces’ (*umma [. . .] lahum wajhān*) and illustration (cat. 354)

FOL. 133V

Line 1: ‘The People with Two Heads and Multiple Legs’ (*umma lahum ra’sān wa aṣṣāl kathīra*) and illustration (cat. 355)

Lines 2–3: ‘The Female People’ (*umma ‘alā ṣūrat al-nisā’*) and illustration (cat. 356)

Line 4: ‘The Human-headed Snakes’ (*umma ru’ūsuhā ru’ūs al-insān wa abdānuhā abdān al-ḥayyāt*) and illustration (cat. 357)

Lines 5–6: ‘The People with Mouth and Eyes on Their Chest’ (*umma [. . .] afwāmuhum wa ‘uyūnuhum ‘alā ṣudūrihim*) and illustration (cat. 358)

One folio missing including: the People with a Tortoise Shell on Their Back, the People with One Leg Called ‘Nasnās’, the introductory text of the ‘Second Part on Composite Animals (or Crossbreeds)’ (*al-qism al-thānī fī al-ḥayawānāt al-murakkaba*), the Cross between a She-Camel and a Hyena (‘Giraffe’ (*zarāfa*)), the Cross between a Horse and an Onager, the Cross between a Camel and a Large Camel Called ‘Faliḥ’, the Cross between a Man and a Bear, and the Cross between a Wolf and a Hyena.

FOL. 134R

Lines 1–5: ‘The Cross between a Dog and a Wolf’ (*al-mutawallad min al-kalb wa al-dhi‘b*) and illustration (cat. 359)

Line 6: ‘The Cross between a Pigeon and a Ring Dove’ (*al-mutawallad min al-ḥamām wa al-warshān*) and illustration (cat. 360)

Lines 7–11: ‘The Third Part on Animals Having a Strange Aspect’ (*al-qism al-thālith fī ḥayawānāt gharībat al-ṣuwar*)

Lines 12–22: [The Giant] ‘Ūj ibn ‘Anaq’ and illustration (cat. 361)

FOL. 134V

Lines 1–6: End of ‘Ūj ibn ‘Anaq

Lines 7–15: A Giant from Bulghār and illustration (cat. 362)

Lines 16–25: A Giant from Mosul and illustration (cat. 363)

FOL. 135r

Lines 1–14: Siamese Twins from Yemen and illustrations (cat. 364–5)

Lines 15–25: ‘The Human-headed Rook’ (*al-zāgh lahu ra’s ka-ra’s al-insān*) and illustration (cat. 366)

FOL. 135v

Lines 1–3: End of the Human-headed Rook and illustration (cat. 367)

Lines 3–6: ‘The Horned Horse [...] and the Human-headed Fox’ (*farasa [sic] lahā qarnān [...] wa tha‘lab wajhuhu kawajh al-insān*) and illustration (cat. 368)

Lines 7–8: Conclusion of the Book

The legible words read: ‘The end of the speech, praise be to God the Only One. And God bless [Muḥammad]. This book has been copied from the [original] writing of the author with the assistance of [?] [...]’ (*ākhir al-kalām wa al-ḥamdu lillāh waḥdahu wa ṣallā allāh ‘alā [muḥammad] nuqila hadhā al-kitāb min khaṭṭ muṣannif bi-‘aw[n] [?] [...]*).

Last folio missing including: the end of the conclusion of the book and possibly its colophon.

Notes

1. For a biography on al-Qazvīnī, see Krachkovski 1956: 360–7, Maqbul, ‘al-Qazvīnī’, *DSB*, and Lewicki, ‘al-Qazvīnī’, *El2*. The editions of the text in Arabic used by the present writer are the following: al-Qazvīnī 1848, al-Qazvīnī 1903 and al-Qazvīnī 1977. An edition in Persian is al-Qazvīnī 1983; another in Urdu is al-Qazvīnī 1869. Collected studies on al-Qazvīnī are in Sezgin 1994. The closest study to a critical edition and complete translation in German is von Hees 2002, also partially available in Italian (von Hees 2008). Partial translations and abridgements, also in German, are Ethé 1868 and Giese 1986. Translations of single chapters or sections of the text are included in the following selected bibliography on al-Qazvīnī’s work: Wähl 1791: 180–207, de Sacy 1827, Clément-Mullet 1840 and 1854, Jacob 1892, Ruska 1896, Ansbacher 1905, Wiedemann 1911, Ruska 1913 and 1914, Wiedemann 1916, Ruska 1919, Wittkower 1942, Brockelmann 1943–49, I: 481–2, no. 12, SI: 882–3, Krachkovski 1956, Kowalska 1959, 1967 and 1969, Badiee 1978, Arkoun et al. 1978: 118–25, de Ruiter 1985, Maqbul, ‘al-Qazvīnī’, *DSB*, and Lewicki, ‘al-Qazvīnī’, *El2*.
2. For the so-called *abrī*, see Ettinghausen 1977.
3. Similar backgrounds are not uncommon on opening pages of manuscripts of the beginning of the fourteenth century, especially Qur’ans. A good example is represented by the opening pages of a Qur’an copied by Aḥmad ibn al-Suhravardī in Baghdad in 707/1307, now in the Topkapı Sarayı Library in Istanbul (H. 245; see Gray 1985: pl. IVa–b). Another page decorated with palmettes and rosettes on a pink hatched ground

- comes from a Qur'an sold at Sotheby's in London in 1985 (Sotheby's 1985: no. 188). The manuscript was copied in Persia or Turkey by Husayn al-Faqīr al-Mawlawī and is dated 734/1334.
4. 'Alā al-Dīn 'Aṭā Malik ibn Muḥammad Juvaynī (623–81/1226–83), a Persian governor and historian, author of the *Ta'rikh-i jahān-gushāy* ('The History of the World Conqueror'). In 657/1259 he was appointed governor of 'Iraq and Khuzistan, a post which he continued to hold for more than twenty years. He is praised by his contemporaries as a highly cultured man and a patron of poets and scholars. See Barthold, 'Djuwaynī', *El*2.
 5. Three folios are missing here in the Munich Qazvīnī; they once included ten out of twelve constellations of the Zodiac (the first two, Aries and Taurus, are extant) and the first two constellations of the Southern Hemisphere (Cetus and Orion). See the Table of Comparison in Chapter 5.
 6. Abū al-Faql Ṣāliḥ ibn 'Abd al-Quddūs (d. 777 AD). He was a Manichaean poet from Basra who was ordered to be executed for heresy by the caliph al-Mahdī. See Dodge 1970, I: 359 and II: 804 and 1091.
 7. Murdād, the fifth Persian month, is not present.
 8. Mihr, the seventh Persian month, is not present.
 9. As compared to all the other folios of the London Qazvīnī, folio 21 is unique in showing a larger handwriting on its recto (see above), and more lines and a more condensed handwriting on its verso. It seems likely that this folio had to be rewritten once the whole text had been copied; the calligrapher copied the recto of the folio with larger handwriting, therefore he had to make up for the text on its verso by using a denser calligraphic hand in order to finish the folio at the required point.
 10. Some confusion must have originated at some stage as to the numbering of the chapters of this second part of the book. In al-Qazvīnī 1903, which is based mainly on the Munich Qazvīnī, the title 'First Chapter on the Elements' was overlooked (in the Munich Qazvīnī, fol. 50v, this title is replaced simply by the word 'First' (*awwal*)). Consequently, the editor of al-Qazvīnī 1903 numbered the following Chapters on Fire, Air and Water respectively as First, Second and Third, until he realised that they did not correspond to the original manuscript. Then the editor numbered the Chapter on Earth, i.e. the Fifth, correctly, thus ignoring a Fourth Chapter. In the London Qazvīnī, only the folios containing the titles of the Fourth Chapter on Water and of the Fifth, on Earth, have survived (fols 27v and 53r); they are correct as compared to the Munich Qazvīnī.
 11. See above, note 10.
 12. According to al-Qazvīnī 1977: 151, at line 15 of this page the title 'Mediterranean Sea' (*al-baḥr al-abyaḍ*) should be found. Instead, it seems that the text continues to describe the 'Ocean'.
 13. See the note in the text of cat. 57 in the Catalogue of the Illustrations, Part Two.
 14. This geographical chapter on mountains, springs and wells includes only five illustrations. The correct transcription of places has been carried out with the help of the following texts: Yāqūt 1866–73, Ethé 1868, Le Strange 1903, al-Qazvīnī 1960 and Le Strange 1966.
 15. The name of a hill at Mecca, nowadays levelled off. Pilgrims perform the ritual walk between al-Ṣafā' and another hill, al-Marwa, seven times during their visit to Mecca.
 16. This name was mistakenly copied. The correct reading is Zarāwand

according to the Munich Qazvīnī. The Spring of Nihāwand is listed below in the text of the London Qazvīnī in its correct alphabetical order (q.v. fol. 65r).

17. This chapter is not illustrated. The identification of metals and a good number of minerals has been carried out with the help of the following bibliography: Clément-Mullet 1868, Steinschneider 1895, Ruska 1896, 1912 and 1919, Renaud and Colin 1934, Ritter 1935, Siggel 1950 and Levey 1962. Many names of minerals, however, are left without translation in these texts. In Ruska 1896 the translation into German of al-Qazvīnī's text is of some use for the identification of the minerals.
18. *Rasās* and *usrub* are both 'Lead', perhaps distinguished respectively as Red Lead (minium) and White Lead. In the Lapidary of Aristotle, minium is declared to come from Lead (*rasās usrub*), which has changed to become red in the fire. See Levey 1962: 23, note 161.
19. The text reads simply 'Iblis's Stone' (*ḥajar iblis*), but it is found in the Munich Qazvīnī as 'Iblis's Testicle' (*khusyat iblis*, fol. 105r). It is usually mentioned in the literature on the subject with the latter name.
20. The title is taken from al-Qazvīnī 1903, I: 312. In the London Qazvīnī the title wrongly reads 'the stone called *ṭāliqūn*' which is correctly repeated for the following stone.
21. The word is used for both Mica and Talc. Dozy 1845 gives *ṭalq abyad* for Talc. Perhaps the previous mineral, *ṭāliqūn*, is used by al-Qazvīnī as a distinction between the two minerals.
22. From the Persian, meaning 'burnt stone'. It is a lead oxide. See Renaud and Colin 1934: no. 256.
23. This translation is valid today; as for medieval times, the meaning of *naft* is uncertain. See Levey 1962: 35, note 248.
24. From here on, the text dealing with the majority of animals also includes a 'Section on the Characteristics of the Parts [of the Animals]' (*faṣl fī khawāṣṣ ajzā'ihī*).

Catalogue of the Illustrations of the London Qazvīnī

THE FOLLOWING IS a catalogue of the 368 illustrations that survive in the 135 folios of the London Qazvīnī. Their original number when the codex was complete was about 520 according to a comparison with other illustrated copies of the same text from the thirteenth to the fifteenth centuries (see the discussion and Table of Comparison in Part One, Chapter 5).

Each entry of the following catalogue includes the identification of the subject of the illustration, its description and excerpts from the text that are relevant to the painting. The aim is to emphasise the close relationship between text and illustration in order to achieve a better understanding of the manuscript as a combination of written word and images.

The catalogue is arranged from entry 1 to entry 368 according to the reconstructed textual order of the incomplete manuscript.

Each entry is organised as follows:

1. Catalogue number of the illustration.
2. Title of the illustration. If the entry refers to a plant or an animal, its name in English is accompanied by a transliteration of the original Arabic, together with its scientific Latin name (genus, family, order). As a rule, a note offers a more detailed explanation of the identification of the subject. In other parts of the text, notes are provided to discuss the identity of the subject of the illustration, especially in the section on the Islands.
3. Folio number and placement of the illustration on the page (for example: fol. 85r, left side of lines 11–18), together with its dimensions in millimetres, height by width.
4. Succinct description of the illustration, its main colours and present condition.
5. Translation of the specific lines of text which are particularly relevant to the subject dealt with in the illustration. The passages within quotation marks are direct translations whereas plain text represents the summary of a passage that is too long to include a full translation.
6. Folio number and lines of the translated or summarised text

from the London Qazvīnī in addition to the corresponding texts from the Munich Qazvīnī and from the edition printed in Cairo (Qazvīnī 1903 in the bibliography). The three texts are abbreviated respectively as 'London', 'Munich' and 'Cairo'.

The Planets

Cat. 1¹ (Fig. 3.6)

The Planet Mercury (*utārid*)

Fol. 8r, below line 3; 87×165 mm

A bearded haloed man sits astride a multi-coloured peacock. He holds a black coiling snake and a black book in his outstretched hands. He wears a red and gold tunic. Part of the tail and the legs of the peacock are painted outside the frame. The upper part of the painting is slightly damaged. The damaged peacock's and man's bodies have been largely replaced by patches of pasted paper.²

'The astronomers call it "hypocrite" because its nature is lucky if in conjunction with a[nother] lucky [planet], but it has negative influence when in conjunction with an evil [planet]. The volume of its body is twenty-two times smaller than Earth, its equator is 286 parasangs long,³ and its diameter is 273 miles.⁴ [Mercury] remains in each sign of the Zodiac for about twenty-seven days. It is strongly retrograde and regular [in its course]. It rotates around the Sun.'

[London fol. 8r: 1–3; Munich fol. 13r: 6–8 and 13v: 1; Cairo I: 36, 24–36]

The Constellations⁵

Cat. 2 (Fig. 4.4)

Orion (*al-jabbār*)⁶

Fol. 9r, between lines 7 and 8; 94×173 mm

A bearded man is pictured kneeling in left profile. He wears a violet tunic. His right arm is outstretched and its hand holds a stick; in his left hand he holds the scabbard of a curved sword which is fastened around his waist. The left shoulder is damaged. Gold stars framed in red are painted over and outside the figure.⁷

'The constellation [contains] thirty-eight stars. It is represented as a man standing, facing south of the course of the sun. He holds a stick in his hand and a sword at his waist.'

[London fol. 9r: 2–3; Munich missing; Cairo I: 67, 16–21]

Cat. 3 (Fig. 2.6)

Eridanus, the River (*al-nahr*)⁸

Fol. 9v, between lines 1 and 2; 75×172 mm (in the same frame as cat. 4)⁹

An undulating greyish-blue stripe. The painting is patched and damaged. Some pigment is missing.

'There are thirty-four stars in the constellation. No [other] stars have been observed outside its configuration.'

[London fol. 9r: 9; Munich fol. 23r: 3-4; Cairo I: 67, 38 and 68, 1-3]

Cat. 4 (Fig. 2.6)

Lepus, the Hare (*al-arnab*)¹⁰

Fol. 9v, left side of lines 2-6; 43×120 mm (in the same frame as cat. 3)
A pink hare is shown in left profile. It has long ears and a short curly tail. The left hind leg is damaged.

'Twelve stars [belong] to the constellation, while none is visible outside it. It is under the constellation of Orion, and faces west.'

[London fol. 9v: 3-5; Munich fol. 23r: 18-21; Cairo I: 68, 34-8]

Cat. 5 (Fig. 2.10)

Canis Major, the Greater Dog (*al-kalb al-akbar*)¹¹

Fol. 10r, above line 1; 62×166 mm

A pale-pink dog is seen in left profile, seemingly walking. It has a large head, long ears, a red collar, and a very large furry and curly tail. Its ears and tail are drawn outside the frame. The painting is in good condition.¹²

'The constellation has eighteen stars, and eleven other stars outside its figure. It is represented by a dog behind Orion.'

[London fol. 9v: 9; Munich fol. 23r: 23-6; Cairo I: 69, 6-10]

Cat. 6 (Fig. 2.10)

Canis Minor, the Lesser Dog (*al-kalb al-mutaqaddim*)¹³

Fol. 10r, left side of lines 3-10; 75×107 mm

A pale-grey saluqi-like dog, shown in left profile, is in the same position as the previous figure (cat. 5) except for the raised foreleg and a more raised head. It has a curly, though not furry, tail. The body is damaged. The left hind leg is patched.

'[It is composed of] two stars situated between the head of Gemini and the mouth of Canis Major.'

[London fol. 10r: 2; Munich fol. 23v: 5-7; Cairo I: 69, 35-8]

Cat. 7

Argo Navis, the Ship (*al-safīna*)¹⁴

Fol. 10v, above line 1; 82×167 mm

A black ship, seen in left profile, has a tall prow in the shape of an animal's head and the stern is in the shape of a fish tail. A sail is tied to the mast and two large, long oars protrude from the stern. The painting is in good condition.

'The constellation [includes] forty-five stars inside the figure, none outside.'

[London fol. 10r: 14; Munich fol. 23v: 14-15; Cairo I: 70, 17-19]



Col. 1 *Argo Navis, the Ship* (al-safina), fol. 10v, 82×167 mm.

Cat. 8

Hydra, the Dragon (al-shujāʿ)¹⁵

Fol. 11r, left side of lines 1–9; 83×103 mm

A pale-grey serpent-like animal has a sinuous body drawn with one loop. It has a dragon's head with a 'curly' nose and a tuft of hair behind the small ears. The painting is in good condition.

'Twenty-five stars [belong] to the constellation, plus two outside it.'

[London fol. 11r: 2–3; Munich fol. 24r: 7–9; Cairo I: 72, 7–9]



Col. 2 *Hydra, the Dragon* (al-shujāʿ), fol. 11r, 83×103 mm.

Cat. 9 (Fig. 2.7)

Crater, the Cup (al-bāṭiya)¹⁶

Fol. 11r, left side of lines 11–14; 43×103 mm (in the same frame as cat. 10)

A round-footed vase has a large splayed mouth. It is pale-blue with a pale-brown mouth. The painting is slightly damaged.

'The constellation [includes] seven stars, situated north of Hydra.'
[London fol. 11r: 12; Munich fol. 24r: 18-19; Cairo I: 72, 25-7]

Cat. 10 (Fig. 2.7)

Corvus, the Raven (*al-ghurāb*)¹⁷

Fol. 11r, left side of lines 15-21; 58×103 mm (in the same frame as cat. 9)

A black-and-white crow, seen in left profile, picks up a star in its beak. It has a long, straight tail and outstretched bent wings. The painting is in good condition.

'The constellation [is formed] by seven stars which are visible behind Crater.'

[London fol. 11r: 16; Munich fol. 24r: 18-19;¹⁸ Cairo I: 72, 30-1]

Cat. 11 (Fig. 5.1)

Centaurus, the Centaur (*qintawrus*)¹⁹

Fol. 11v, between lines 1 and 2; 102×170 mm

A human-bodied horse is pictured in left profile. The man's head has long hair and the face is bearded. The figure has outstretched arms, the right one grasping a lion's paw (symbolising the following constellation, Lupus), which emerges from the top left corner; the left hand holds two stemmed 'buds' representing two stars. The horse is light brown. The painting is slightly damaged. Some pigment is missing.

'[There are] thirty-seven stars in the constellation; its figure is a horse whose forepart is the body of a man from head to waist, while its rear part is the body of a horse from the top of its back to the tail. Its head faces east whereas the end of its tail looks west. He holds two stalks²⁰ in one hand, and the paw of Lupus in the other.'

[London fol. 11r: 22-4; Munich fol. 24v: 1-4; Cairo I: 72, 37-40 and 73, 1-6]

Cat. 12 (Fig. 5.1)

Lupus, the Beast (*al-sub*)²¹

Fol. 11v, between lines 5 and 6 and right side of lines 6-8; 91×170 mm

A pale-orange lion is shown seated in left profile. The long tail passes behind its left hind leg. Its head has a large mane. The painting is in good condition.

'The constellation has nineteen stars and is found behind Centaurus. Some of its stars are mixed with those of Centaurus so that it looks like it grabs its paw.'

[London fol. 11v: 3-4; Munich fol. 24v: 7-8; Cairo I: 73, 13-17]

The Angels

Cat. 13²² (Fig. 3.4)

The Archangel Gabriel (*jibrāʿīl*)²³

Fol. 12r, above line 1; 117×163 mm

A massive haloed and crowned angel is seen in three-quarters left profile and set against a red background. A rich, long robe in red and gold covers his body completely, drawn tight by a floating knotted gold ribbon. He wears ear-rings. The angel has four arms, four wings and three black plaits. A pale-blue cloud-like pattern protrudes from his back. The painting gives a strong impression of movement towards the left. It is partially damaged: the face, one wing and one arm on the left side, and part of the cloud are no longer visible.

Gabriel is the custodian of the Revelation and the treasurer of Holiness. He is called 'the Custodian Spirit', 'the Custodian of Holiness', 'the Greatest Law', 'the Peacock of Angels'. He has six wings, each of them containing one hundred smaller wings.

[London text missing; Munich fol. 33r; Cairo I: 96–7]

Cat. 14²⁴ (Fig. 3.4)

The Archangel Michael (*mikāʿīl*)²⁵

Fol. 12r, below line 2; 122×163 mm

A haloed crowned angel stands in the same position as the previous figure (cat. 13) although his figure is more slender. He wears a pale-blue tunic decorated with blue palmettes. The background is red, and a pale-blue wavy sea is visible in the foreground. He has four arms, three wings and two plaits. He holds a book in one arm. The painting is heavily damaged: the book, part of the body, part of the face, part of the sea, and some details of the angel's arms are no longer visible.

'And among [the angels there is] Michael (on him blessings and salvation): he is in charge of the subsistence of bodies, of judgement, and of the knowledge of souls. Kaʿb al-Aḥbar (may God be pleased with him) said:²⁶ "In the Seventh Heaven there is the flaming sea upon which are many angels according to God's will. Michael watches over the flaming sea and his angels. The number of his wings and his appearance are known only to God. If he opens his mouth, [this cavity] can contain all heavens, just as a mustard seed in the ocean. If he looks down on the inhabitants of Heaven and Earth, these are inflamed by his light.'"

[London fol. 12r: 1–2 and fol. 12v: 1–3; Munich fol. 33v: 1–17; Cairo I: 98, 1–12]

Cat. 15 (Fig. 3.5)

The Archangel Azrael (*ʿizrāʿīl*)²⁷

Fol. 13r, above line 1; 150×167 mm

A standing haloed and crowned angel holding a spear dominates

the enthroned King Solomon, a jinn, and a man. The angel has two arms and four greenish-blue and gold wings and two black plaits. He wears a red tunic down to the heels, revealing long white trousers underneath and light black shoes. Solomon's throne is supported by lions. The jinn is human-bodied with a bovine face. There is grass in the foreground and two tall plants. Both Solomon and the man direct their arms toward the angel, who stares at them, his right hand open. The painting is partially damaged: the angel's face and the body of the man have almost disappeared; the crown and the left foot of the angel are slightly damaged. Some pigment is missing.

'And among [the angels there is] Azrael²⁸ (blessings and salvation on him); he is in charge of the transmigration and departure of souls from their bodies. Azrael abides in the lower skies, and God has made him stand with his feet on the boundaries of the lands while his head reaches the upper sky. [. . .] [We are informed] from al-A'mash²⁹ who reported from Khaythām:³⁰ "The Angel of Death went to Solomon (blessings on them both). He started to stare at a man who was sitting beside [the king], and kept on looking at him. When the Angel of Death went away, the man asked: 'Oh prophet of God, who was that?' He answered: 'The Angel of Death.' [The man] said: 'I saw him looking at me as if he wanted me. Can you order the wind to carry me to the most distant country of India?' Solomon commanded the wind to do that.³¹ When the Angel of Death went back to Solomon [the king] asked him: 'I noticed [last time] that you were staring at one of my guests.' [Azrael] answered: 'I was puzzled because I had been ordered to seize his soul in the most distant country of India in a [very] short while, and [yet] I saw him beside you.'"³²

[London fol. 12v: 5–7 and fol. 13r: 1–6; Munich fol. 33v: 24–6 and fol. 34v: 1–6; Cairo I: 98, 18–25 and 100: 7–27]

Cat. 16 (Fig. 5.2)

The Angels around God (*al-karūbiyyūn*)³³

Fol. 13v, between lines 3 and 4; 85×163 mm

Three haloed and crowned angels are standing. Each angel has two wings and two arms, and wears a long tunic, either red or white with 'curly' folds, and pointed black shoes. Long floating gold ribbons project from the tunics. The hands of a fourth angel are visible between the heads of the two angels on the right side. The painting is slightly damaged. Some pigment is missing.

'And among [the angels there are] those around God (blessings and salvation on them): they always remain in the presence of the sanctity [of God] and they never turn their face away from God in order to be immersed in the beauty of His presence, His divinity and majesty. They glorify [God] night and day.'

[London fol. 13v: 1–3; Munich fol. 34v: 10–12; Cairo I: 100, 41 and 101, 1]

Cat. 17 (Fig. 5.3)**The Angels of the First Heaven**

Fol. 13v, below line 10; 65×163 mm

A haloed pink winged bull is seen in left profile with an angel standing behind it. The painting is heavily damaged: the lower part is hardly visible; some pigment is missing in the upper part. The angel's body is patched.

'And among [the angels there are] the Angels of the seven Heavens.³⁴ [...] Ibn 'Abbās [said]:³⁵ "The angels of the Lower [First] Heaven are in the shape of cows, and God has assigned to them [as guardian] an Angel called Ismā'īl."

[London fol. 13v: 7 and 10; Munich fol. 34v: 16 and 19–21; Cairo I: 101, 12–13 and 22–6]

The Months**Cat. 18** (Fig. 5.4)**A Custom of the Persian New Year's Day**

Fol. 20v, between lines 11 and 12; 85×169 mm

A turbaned man wearing a pale-green robe sits on a low seat and talks to a figure which is no longer visible (according to the text he would have been an enthroned king). A falconer and his white horse occupy the right side of the painting. The horse's body is depicted in left profile; its hind quarters extend beyond the frame and are squeezed inside the margin of the page. The painting is heavily damaged: the falconer's body is damaged, the left part with the enthroned king is missing, and only one leg, part of the back and cushion of the throne are visible. In addition, a patch above the finial of the throne shows that the surviving part of the throne had been interpreted as a tree trunk.

'It is said that on [New Year's] day³⁶ [...] the king sat and all his servants and subjects prepared for him a curious custom: when [the king] woke up, just as his eyes opened, he saw a handsome servant riding a beautiful horse and holding a pretty falcon in his hands. This was a beautiful [and auspicious] image offered to him by some of his servants.'

[London fol. 20v: 8–11; Munich not copied; Cairo I: 130, 8–15]

Cat. 19**Firūz Makes It Rain**

Fol. 22r, right and left side of lines 14–20 and between lines 20 and 21; 97×170 mm

A man is inside a cave. The painting is entirely damaged: the only original part is the figure in the centre whose red tunic includes a gold *tiraz* and an open folded hem; the profile of a cave is also discernible. The rest of the image is patched and coarsely retouched.

'The thirtieth day of the month [of *bahman*]³⁷ is [called] *anirān*,³⁸ and the feast of *āb-rez*³⁹ used to take place in Isfahan.' That day they

poured water symbolically, and this is in memory of a drought in the time of King Firūz.⁴⁰ The king took great care of his citizens by alleviating taxes, distributing part of his treasury and making sure that nobody was left without food and water. 'Then he prayed and invoked God to free mankind from that [drought]. He entered the House of Fire⁴¹ [. . .] and embraced [the fire] three times, just as a friend embraces his friend, and the flames reached his beard but did not burn it (and it was quite a thick beard!). [. . .] Then he left the House of Fire, and [suddenly] clouds gathered and turned into rain of an unseen intensity. So Firūz knew for certain that his invocation had been listened to; the water reached tents and pavilions, and people embraced one another in joy and happiness.'⁴² [London fol. 22r: 10 and 13–22; Munich fol. 48r: 22 and 26–7 and fol. 48v: 1–4; Cairo I: 135, 40 and 136, 9–27]



Col. 3 *Firūz Makes It Rain*, fol. 22r, 97×170 mm.

The Sphere of Air

Cat. 20 (Fig. 5.5)

The Rainbow (*qaws quzah*)⁴³

Fol. 27r, between lines 6 and 7; 65×170 mm

A multi-coloured arch has four coloured bands: pale-yellow, red, light green and white. The painting is in good condition.

'The colours of the rainbow change according to [the different ways in which] the colour of the reflection is combined with the colour of the sun; [consequently,] one [can] see arches of different colours; some of them [are] red, some green, violet or purple. Sometimes one can see other [colours], up to eight [in number].'

[London fol. 27r: 4–6; Munich fol. 56r: 1–3; Cairo I: 162, 12–18]

The Sphere of Water

The Islands of the Chinese Sea

Cat. 21

The Tree Dwellers of Zābaj (Sumatra)⁴⁴

Fol. 29v, right side of lines 18–25; 80×130 mm

A naked man sits on a low trunk while another stands among the branches of a tree on the right. A second tree completes the painting on the left. The painting is heavily damaged. The body of the sitting man (apart from his hands and part of the left leg) and the trunks are patched.



Col. 4 *The Tree Dwellers of Zābaj* (Sumatra), fol. 29v, 80×130 mm.



Col. 5 *The Winged Cat, the Civet Cat and the Antelope of Zābaj*, fol. 30r, 110×110 mm; *The Large Snakes and the Monkeys of Zābaj*, fol. 30r, 128×180 mm.

'This is a large island at the boundaries of China, at the margins of the Indian countries. It is ruled by a king who is called "Mahrāj". [...] Ibn al-Faqīh⁴⁵ relates that in that island live some creatures who are human in appearance but animals according to their character. They jump from one tree to another and speak a language which nobody is able to understand.'

[London fol. 29v: 16–17 and 20–5; Munich fol. 58v: 19–20;⁴⁶ Cairo I: 171, 1–5 and 10–15]

Cat. 22

The Winged Cat, the Civet Cat and the Antelope of Zābaj

Fol. 30r, left side of lines 1–9; 110×110 mm

A pale-grey cat-like animal has green wings and a mouse-like head; below it are a white antelope with a pale-red tail and a white cat. The painting is in good condition. Some pigment is missing.

'In that island a species of cat is found which has wings like those of bats; and also antelopes similar to the wild cow whose skin is red with white dots and a tail that looks like the tail of the gazelle; there is also the civet which looks like a cat, from which a perfume is obtained.'⁴⁷

[London fol. 30r: 1–8; Munich fol. 58v: 25–6 and fol. 59r: 1–4; Cairo I: 171, 16–24]

Cat. 23

The Large Snakes and the Monkeys of Zābaj

Fol. 30r, between lines 11 and 12 and left

side of lines 12–14; 128×180 mm

Two monkeys sit on a rock (rendered in blue colour as if it were water) on the right side. On the left and in the middle, three large snakes protrude from the rocks. The painting is heavily damaged. The left part, including some rocks and part of the bodies of two snakes, is patched; one monkey has almost vanished through the damage to the painting.

'On that island there is a mountain called Nasbān⁴⁸ where there are big snakes able to eat an elephant; [there are also] white monkeys as well as others with a black back and a white chest.'

[London fol. 30r: 10–14; Munich fol. 59r: 6–7; Cairo I: 171, 25–31]

Cat. 24 (Fig. 2.11)**The Parrots of Zābaj**

Fol. 30v, left side of lines 1–3; 40×110 mm

Three green parrots with red beaks and legs are painted against the blank paper. The painting is in good condition. Some pigment is missing.

‘Zakariyā ibn Yahyā ibn Khāqān⁴⁹ (God bless him) states that on the island of Zābaj there are species of white, red and yellow parrots; they repeat every word they hear.’

[London fol. 30v: 1–3; Munich fol. 59r: 11; Cairo I: 171, 31–5]

Cat. 25 (Fig. 2.11)**The Winged People of Zābaj**

Fol. 30v, between lines 5 and 6; 75×167 mm

Three naked winged men stand on a grassy foreground; each one’s skin and wings are of a different colour, from left to right: pink with white wings, brown with red wings, and green with green wings. The wings are all framed in gold. The painting is in good condition. Some pigment is missing.

‘There are also creatures with human bodies who speak an unintelligible language; their skin can be white, green or black, and they are all winged.’

[London fol. 30v: 4–5; Munich fol. 59r: 9–10; Cairo I: 171, 37–40]

Cat. 26 (Fig. 2.11)**The Camphor Tree of Zābaj**

Fol. 30v, left side of lines 8–17; 95×115 mm

A tree is placed on the edge of a body of water in the foreground. The painting is heavily damaged. Some pigment is missing.

‘Muḥammad ibn Zakariyā [al-Rāzī]⁵⁰ reports that the Camphor tree is found on this island. It is a huge tree whose shadow can be cast over more than one hundred people. When people want to collect its sap, they pierce the upper part of the tree where the camphor “water” is found, then they pierce its trunk a little below and obtain the true resin. When it has been collected the tree is unable to survive any longer, and dies.’⁵¹

[London fol. 30v: 10–17; Munich fol. 59r: 17–18 and fol. 59v: 1–2; Cairo I: 172, 5–16]

Cat. 27 (Fig. 3.25)**The Tree Dwellers of the Island of Rāmni⁵²**

Fol. 31r, between lines 3 and 4; 85×170 mm

Six naked tree-dwellers sit among the branches of two trees in conversation; a seventh is seemingly falling down. The painting is damaged and much pigment is missing. The seventh figure has almost vanished.

‘There are many wonders in this island. Ibn al-Faḡīh says that

there are naked people, men and women, who speak a unintelligible language and live on the top of trees.'

[London fol. 31r: 1–2; Munich fol. 59v: 3; Cairo I: 172, 16–21]

Cat. 28 (Fig. 3.25)

The Rhinoceros of Rāmnī

Fol. 31r, left side of lines 8–17; 95×160 mm

A greyish-brown donkey with a long red horn stands on the foreground, a tree bearing red fruit on its right. The painting is in good condition. Some pigment is missing.

'And among [the trees] are the camphor tree, the reed and the brazilwood; [. . .] [there is] also the rhinoceros which is like a donkey, only bigger.'⁵³

[London fol. 31r: 6–10; Munich fol. 59v: 7–8; Cairo I: 172, 36–7 and 173, 1]

Cat. 29 (Fig. 2.23)

The Buffaloes of Rāmnī

Fol. 31v, between lines 1 and 2; 78×170 mm

Two buffaloes, one greyish-brown and the other greyish-blue, are shown in left profile on a grassy foreground. The painting is partially damaged. Pigment is missing.

'Muḥammad ibn Zakariyā al-Rāzī recounts that there are buffaloes without tails.'

[London fol. 31v: 1; Munich fol. 59v: 7; Cairo I: 173, 1–2]

Cat. 30 (Fig. 2.23)

The Falcons of the Island of Silā (Korea)⁵⁴

Fol. 31v, under line 3, lines 4–5 copied in the middle of the illustration; 135×170 mm

Four falcons are placed in a landscape formed by a large tree with red fruit and two grassy foregrounds: one at the bottom of the page, the other above the two lines of text that were copied in the middle of the painting. The illustration is slightly damaged. Some pigment is missing. Two falcons are heavily damaged. A small patch is present on the trunk of the tree.

'On this island there is plenty of gold. There are white and grey falcons.'

[London fol. 31v: 3; Munich fol. 60r: 8; Cairo I: 173, 6–7]

Cat. 31

The Archipelago of Wāqwāq⁵⁵

Fol. 32r, between lines 3 and 4; 85×165 mm

Two large trees growing on a watery foreground bear red and gold fruit. The painting is damaged. Pigment is missing. There are a few small patches.

'It is in the vicinity of the islands of Sumatra and one can reach it by

following the stars. It is formed by one thousand seven hundred small islands and ruled by a woman. Mūsā ibn al-Mubārak al-Sīrāfi,⁵⁶ who went there, says that the queen is sitting on her throne naked, wearing a crown, and is surrounded by four thousand naked female slaves. It is reported that there is a tree in that island whose fruit produce a sound similar to "Wāq Wāq". Muḥammad ibn Zakariyā [al-Rāzī] says that there is so much gold on the island that people use it to make collars for their dogs and monkeys. The ebony tree is also found there.'

[London fol. 32r: 1–6; Munich fol. 59v: 9 and fol. 60r: 1–5; Cairo I: 173, 13–33]



Col. 6 *The Archipelago of Wāqwāq*, fol. 32r, 85×165 mm.

Cat. 32

The Beautiful People of the Island of Bunān (Nias)⁵⁷

Fol. 32r, under line 7; 90×165 mm

Three women stand amongst large plants. Only the arms, faces and part of the bodies of the two women on the right are original. The figure on the left is patched and retouched. The large plants have probably been added later to the original page. The painting is heavily damaged.

'On this island there are white-skinned naked people of unbelievable beauty; they live on the mountains and are cannibals.'

[London fol. 32r: 7; Munich fol. 60r: 10–12; Cairo I: 173, 34–8]



Col. 7 *The Beautiful People of the Island of Bunān (Nias)*, fol. 32r, 90×165 mm.

Cat. 33 (Fig. 2.28)

The Giants of Bunān

Fol. 32v, between lines 2 and 3; 100×165 mm

Two naked grey-skinned men stand amidst plants. The painting is damaged. Some pigment is missing.

'Beyond this island there are two large islands where a population of black-skinned giants lives. Their hair is pepper-like, their faces are elongated, and their feet are one cubit long;⁵⁸ they [also] are cannibals.'

[London fol. 32v: 1–2; Munich fol. 60r: 12–14; Cairo I: 173, 38–9 and 174, 1–5]

Cat. 34 (Fig. 2.28)

The Lion-headed People of the Island of Aṭwarān⁵⁹

Fol. 32v, under line 5; 80×165 mm

A pale-brown lion-like creature sits on a rock between two trees. The painting is damaged. The rock and part of the lion's legs are patched. Some pigment is missing.

'It is a very big island where the rhinoceros, a species of monkey as big as a donkey, and the camphor tree are all found. It is reported that one of Alexander's ships happened to sail in that sea and arrived at an island where human-bodied, lion-headed people were settled.'

[London fol. 32v: 3–5; Munich fol. 60r: 14–16; Cairo I: 174, 6–14]

Cat. 35 (Fig. 4.8)

The Fish Called 'Sayalān'

Fol. 33r, left side of lines 1–4; 40×70 mm

A blue fish with gold gills swims in the water. The painting is slightly damaged. Some pigment is missing.

'The author of the *Tuhfat al-gharā'ib*⁶⁰ writes that the fish called *sayalān*⁶¹ stays for two days on land until it dies. When cooked, a lid must be kept on the pot otherwise its parts jump out of the cauldron.'

[London fol. 33r: 1–4; Munich fol. 60v: 23–5; Cairo I: 175, 23–32]

Cat. 36 (Fig. 4.8)

Dugong (*aṭum*)

*Fam. Dugongidae, Ord. Sirenia, Superord. Paenungulata*⁶²

Fol. 33r, right side of lines 5–7; 27×75 mm

A generic fish has a tusk. The painting is entirely damaged. Only some water, part of the back, a fin, the face and a gold tusk are visible.

'The Dugong has a face like a pig, a vulva like a woman's and hair instead of scales.'

[London fol. 33r: 5–6; Munich fol. 60v: 20; Cairo I: 175, 33–6]

Cat. 37 (Fig. 4.8)

A Species of Crab

Fol. 33r, left side of lines 7–11; 47×80 mm

A greyish-blue crab swims in the water, which is rendered by means of superimposed 'fish scales' each with a curl of foam in the middle. The painting is in good condition. Some pigment is missing.

'A species of crab, about a span long, quickly moves from the water to the land in a flying motion. It soon turns into a sort of stone thus losing its aspect of a living animal.'⁶³

[London fol. 33r: 8–10; Munich fol. 60v: 21–2; Cairo I: 175, 38–40]

Cat. 38 (Fig. 4.8)

Giant Snakes

Fol. 33r, between lines 13 and 14; 87×165 mm

A large snake with an inflated and knotted body rests under a palm with red date clusters. A grassy foreground and a dead tree are on the

right. The painting is slightly damaged. Some pigment is missing. The body of the snake is damaged.

'Big snakes are found which are able to eat buffaloes and elephants; they swallow their victim and coil around a tree or a rock until they shatter the bones of their prey.'⁶⁴

[London fol. 33r: 12–13; Munich fol. 61r: 4–5; Cairo I: 176, 1–4]

The Islands of the Indian Sea

Cat. 39

The Long-haired People of the Island of Bartā'iyīl⁶⁵

Fol. 34r, between lines 8 and 9; 84×170 mm

Three naked women stand against a watery foreground. The painting is heavily damaged. There are several patches. Only the upper part of the figure in the centre and the woman on the left are original. Some pigment is missing.

'This island is in the vicinity of the Island(s) of Sumatra. [...] A merchant reported that he saw some people there whose faces had Turkish features and whose ears were pierced. Their hair was coiffed as a woman's hair and they avoided other people.'

[London fol. 33v: 24 and fol. 34r: 7–8; Munich fol. 61v: 14 and 22–3; Cairo I: 178, 13–14 and 39–40, and 178, 1]⁶⁶



Col. 8 *The Long-haired People of the Island of Bartā'iyīl, fol. 34r, 84×170 mm.*

Cat. 40

The Dog-headed People of the Island of the Palace⁶⁷

Fol. 34v, between lines 6 and 7; 95×167 mm

On the right side, two dog-headed men with white skin are in conversation amidst a landscape of red rocks and water. On the left is a pale-brown brick-wall building with an arched door. The painting is heavily damaged. The two men have almost vanished. Pigment is missing.

'On this island there is a white palace which is of good omen for sailors; they say that it assures them of profit, safety and good luck on the seas. [...] It is reported that the companions of Alexander saw on some islands dog-headed people from whose mouth fire emanated.' When Alexander was about to fight them he noticed a palace made of crystal from which these strange people were emerging. A brahmin dissuaded him from his intention to go there, where he would have met his death.

[London fol. 34v: 2–3, 5–6 and 7–9; Munich fol. 62r: 6–7 and 9–13; Cairo I: 179, 36–40 and 180, 1–19]⁶⁸



Col. 9 *The Dog-headed People of the Island of the Palace*, fol. 34v, 95×167 mm.

Cat. 41 (Fig. 2.24)

The People with the Face on Their Chest from the Island of Jāba⁶⁹

Fol. 35r, above line 1; 60×167 mm

Four naked figures have their face placed on the chest. The landscape is undulating, with water and tall plants. The painting is partially damaged. The two figures on the right are heavily patched. Some pigment is missing.

‘On this island there are red-skinned people whose faces are placed on their chests.’⁷⁰

[London fol. 34v: 14; Munich fol. 62v: 8; Cairo I: 180, 34–6]⁷¹

Cat. 42 (Fig. 3.1)

Alexander on the Island of the Dragon⁷²

Fol. 35r, between lines 6 and 7; 80×167 mm

On the left, Alexander is shown enthroned and surrounded by seven persons, six standing and one sitting. On the right are a bull and a dragon. Plants are in the background. The painting is heavily damaged. The bull and the dragon are almost entirely patched, with only the bull’s hind legs and horns and the dragon’s tail in their original condition. The left side is original except for Alexander’s face, which is retouched. The seated figure and Alexander’s body are damaged. Some pigment is missing.

On this island people were frightened by a large dragon which used to terrorise and eat them. Alexander freed them from the beast by feeding it every day two fat bulls until it got used to having such easy prey; on the last day Alexander ordered the bulls to be filled with every sort of poisonous substance, including sulfur and iron, so that the dragon died as soon as it ate them.

[London fol. 35r: 3–10; Munich fol. 62v: 11–18; Cairo I: 183, 12–40]

Cat. 43 (Fig. 3.15)**The Animal Called 'Mi'rāj' on the Island of the Dragon**

Fol. 35v, left side of lines 1–4; 40×80 mm

A furry brown quadruped with a single red horn is set against a blank background. The painting is entirely damaged. Only the horn, part of the head, and the forepaws are original. The rest is patched.

The people freed from the dragon by Alexander (cat. 42) thanked him by offering him a strange animal called *mi'rāj*.⁷³ 'It was similar to a yellow hare with a black horn on its head.'

[London fol. 35r: 11 and fol. 35v: 1; Munich fol. 63r: 4–7; Cairo I: 184, 1–2]

Cat. 44 (Fig. 3.15)**The Human-headed Fish**

Fol. 35v, right side of lines 5–10; 45×75 mm

A white fish has a human head. The painting is heavily damaged. Much pigment is missing.

'The human-headed fish has a protruding part on its face which is visible on the surface of the sea.'

[London fol. 35v: 12–14; Munich fol. 63r: 14–16; Cairo I: 184, 25–8]

Cat. 45 (Fig. 3.15)**The Fish Swimming on the Surface of the Sea**

Fol. 35v, left side of lines 12–15; 40×95 mm

A circular greyish-blue fish has two small pale-brown legs. A small gold sun with red rays is visible in the top left corner. The painting is entirely damaged. Only the sun appears to be original although it may have been added at a later time. The animal is patched.

'When a fish that lives on the surface of the water sees an animal with its mouth open it enters it and thus it becomes food for it.'

[London fol. 35v: 15–16; Munich fol. 63v: 1–2; Cairo I: 184, 29–31]

Cat. 46 (Fig. 3.15)**The Fish That Is Able to Set Fire**

Fol. 35v, right side of lines 16–18; 25×75 mm

A small pale-green fish. The painting is slightly damaged. Some pigment is missing.

'An animal emerges from the water and is able to set fire to the land with the fire that springs from its nostrils.'

[London fol. 35v: 18–19; Munich fol. 63v: 2–3; Cairo I: 184, 33–6]

Cat. 47 (Fig. 3.15)**The Flying Fish**

Fol. 35v, left side of lines 19–22; 35×80 mm

A white fish spotted in red has a bird's head and pale-green wings.

The painting is entirely damaged. Only the tail, one wing and the tip of the second wing are original; the rest is patched.

'A winged fish flies overnight to land and eats grass. During the day it goes back to the sea.'⁷⁴

[London fol. 35v: 23–5; Munich fol. 63v: 3–4; Cairo I: 184, 40]

Cat. 48 (Fig. 3.15)

A Fish⁷⁵

Fol. 35v, right side of lines 22–4; 38×85 mm

A red fish with its mouth open has gold eyes and gills. The painting is in good condition. Some pigment is missing.

Cat. 49

The Fish That Provides Invisible Ink

Fol. 36r, between lines 2 and 3; 60×168 mm

A large pale-blue fish has a sinuous body, a large head, gold gills and red eyes and tongue. The painting is damaged. Its head, the tail and some parts of the body are original while the rest is patched or damaged.

'A large fish is well-known because its fluid is used as an invisible ink which is legible on paper only at night. People use it when they do not intend to let others know what they have written.'

[London fol. 36r: 1–2; Munich fol. 63v: 4–6; Cairo I: 180, 37–40]

Cat. 50

The Snake-headed Green Fish

Fol. 36r, left side of lines 3–5; 30×75 mm

A small, sinuous, snake-like pale-pink fish is set against the blank paper. The painting is heavily damaged.

'The flesh of the snake-headed green fish has the property of satisfying one's appetite for a few days; therefore it is often eaten by travellers.'

[London fol. 36r: 3–5; Munich fol. 63v: 6; Cairo I: 181, 1]



Col. 10 *The Fish That Provides Invisible Ink*, fol. 36r, 60×168 mm; *The Snake-headed Green Fish*, fol. 36r, 30×75 mm; *The Circular Fish Called 'Gāw Māhī'*, fol. 36r, 45×85 mm.

Cat. 51

The Circular Fish Called 'Gāw Māhī'

Fol. 36r, right side of lines 7–11; 45×85 mm

A greyish-blue fish has four fins. The painting is entirely damaged. Only the tips of the upper fins are original; the rest is patched.

'A circular fish called [in Persian] *gāw māhī*⁷⁶ has a sort of column protruding from its head, by means of which it can kill other fishes.' [London fol. 36r: 6–8; Munich fol. 63v: 7; Cairo I: 181, 1–5]

*The Islands of the Persian Sea*⁷⁷

Cat. 52 (Fig. 5.6)

The Pirates of the Island of Jāshik⁷⁸

Fol. 37r, under line 18; 65×167 mm

Two men fight with swords and shields, standing on a foreground with water behind. One wears a red tunic, the other a white one. The painting is partially damaged. Part of the foreground and the lower part of the figure on the left is patched; the rest is original. Some pigment is missing.

'It is near the island of Qays.⁷⁹ Its inhabitants are very much given to piracy and fighting on water,⁸⁰ where they are more skilled than anybody on land. The people from Qays regard the [inhabitants of Jāshik] as jinns.'

[London fol. 37r: 17–18 and fol. 37v: 2; Munich fol. 64r: 25–6; Cairo I: 186, 5–11, 20]

Cat. 53 (Fig. 5.7)

Collecting Ambergris near the Island of Kandūlāwuri⁸¹

Fol. 37v, between lines 8 and 9; 75×170 mm

Two fishermen catch a large fish from a crescent-shaped grey boat with a single sail. The painting is heavily damaged. The lower part is patched. The only original parts are the two fishermen, the mast, part of the sail, the prow of the boat and the head of the fish.

'The people from Oman and Siraf report that ambergris grows in the depth of the sea [around this island], while mushrooms grow [on land] there. When the sea is turbulent, the ambergris comes to the surface; large fishes eat it and die, so the fishermen can capture them and take the ambergris from their stomach.'⁸²

[London fol. 37v: 4–8; Munich fol. 64v: 4–5; Cairo I: 186, 27–38]

Cat. 54 (Fig. 5.7)

The Fish That Shakes the Water

Fol. 37v, right side of lines 10–14; 40×65 mm

A generic small pale-blue fish. The painting is damaged in its entirety.

'A fish is known by fishermen because it makes the surface of the sea very disturbed when it emerges. Abū al-Rayḥān [al-Bīrūnī] recounts in his *Āthār al-bāqiyya*⁸³ that every thirteenth day of [the month of] *Kānūn al-thānī* the surface of the sea is in turmoil from Alexandria to Fars for this reason.'

[London fol. 37v: 9–13; Munich fol. 64v: 10–12; Cairo I: 186, 41 and 187, 1–3]

Cat. 55 (Fig. 5.7)**The Fish Called 'Asyūr'**

Fol. 37v, left side of lines 16–18; 30×90 mm

A generic pale-pink fish. The painting is heavily damaged. Pigment is missing.

'The fish called *asyūr* is found around Basra for two months every year at a specific time. Apart from those two months, not a single one of them is seen around Basra for the rest of the year.'

[London fol. 37v: 16–18 and fol. 38r: 1; Munich fol. 64v: 15–16; Cairo I: 187, 10–15]

Cat. 56 (Fig. 5.8)**The Fish Called 'Juwāf'**

Fol. 38r, left side of lines 1–4; 40×80 mm

A pale-brown fish has a short tail. The painting is partially damaged. The upper part of the background is patched; the fish is original. Some pigment is missing.

The *juwāf* is another fish whose behaviour is identical to that of the above-mentioned *asyūr*, being found around Basra only two months every year.⁸⁴

[London fol. 38r: 1–4; Munich fol. 64v: 15–16;⁸⁵ Cairo I: 187, 15–18]

Cat. 57 (Fig. 5.8)**Red Mullet** (*barāstūj*)

Mullus surmuletus, Fam. Mullidae, Ord. Perciformes⁸⁶

Fol. 38r, right side of lines 6–10; 45×70 mm

A curling greyish-blue eel-like fish is set against a background of pink volutes. The painting is partially damaged. The central part of the body and part of the head is patched; the rest is original. Some pigment is missing.

The red mullet is another fish which goes to Basra at a certain time; it comes from the Land of Zanj⁸⁷ where it always returns after its stay in the Tigris. It is impossible to find a single mullet in Basra when they are in Zanj, and vice versa.⁸⁸

[London fol. 38r: 4–10; Munich fol. 64v: 20–4; Cairo I: 187, 18–38]

Cat. 58 (Fig. 5.8)**Shark** (*kawsaj*)

Fam. Squalidae, Ord. Squaliformes⁸⁹

Fol. 38r, left side of lines 12–15; 40×85 mm

A sinuous brown fish has a large head and long teeth. The fish is entirely replaced by a patch.

'The *kawsaj* is a species of fish which is stronger than a lion in the water; it cuts animals into pieces with its teeth which are as sharp as a sword. Its size is one to two cubits [. . .] and it can also cut human limbs such as hands and feet with its teeth. [. . .] It is found at a certain time in the Tigris at Basra.'

[London fol. 38r: 12–14 and 16–17; Munich fol. 64v: 24–7 and fol. 65r: 1–3; Cairo I: 187, 38–41 and 188, 1]

Cat. 59 (Fig. 5.8)

The Sea Dragon

Fol. 38r, left side of lines 18–25; 75×140 mm

A large dragon-like fish has a pale-blue scaly body, long and sharp teeth and gold gills and eyes. The fish is set against a background of pink volutes. The painting is damaged. Part of the tail is patched. Much pigment is missing.

‘The [sea]-animal known as Dragon is even worse than the shark since its canine teeth are like spears. It is as long as a palm tree, its eyes are bloody and it is horrible to see. Even the shark is frightened by the Dragon.’

[London fol. 38r: 17–25; Munich fol. 65r: 5–10; Cairo I: 188, 2–7]

Cat. 60

The Green Fish with a Proboscis

Fol. 38v, left side of lines 1–4; 39×97 mm

A sinuous pale-blue fish has a short tail and a pale-brown proboscis. The painting is heavily damaged. Much pigment is missing. The drawing of a saw is also visible, in red ink, as a pentimento for the trunk.

‘[It is] a green fish longer than one cubit, which has a peculiar big proboscis protruding from its head. It looks like a saw without teeth and this fish uses it to hit other animals.’

[London fol. 38v: 1–4; Munich fol. 65r: 11–13; Cairo I: 188, 8–13]



Col. 11 *The Green Fish with a Proboscis*, fol. 38v, 39×97 mm; *A Circular Fish with a Sting [Stingray?]*, fol. 38v, 56×78 mm.

Cat. 61

A Circular Fish with a Sting [Stingray?]

Fol. 38v, right side of lines 7–12; 56×78 mm

A circular, flat, pale-brown fish has scales, a round face and a thin tail. The painting is damaged. Some pigment is missing.

‘A [certain] fish as round as a shield is provided with a tail which is longer than three cubits, and in the middle of it there is a sting, curved like a hook, which it uses as a weapon. Its nostrils are on its back, the mouth is on its stomach and its vulva is like a woman’s.’

[London fol. 38v: 6–10; Munich fol. 65r: 15–21; Cairo I: 188, 17–27]

Cat. 62–3 (Fig. 3.12)

The Man from Isfahan Rescued by the Giant Bird⁹⁰

Cat. 62: fol. 39r, left side of lines 1–10; 95×130 mm

A large tree is set against the background of a grassy landscape and a blue night sky with gold stars. A large rooster with red feathers and gold beak and ears rests atop the tree. The painting is slightly damaged. Some pigment is missing.

Cat. 63: fol. 39r, between lines 13 and 14; 90×170 mm

On the right, two men stand at the entrance of a pale-orange brick-walled building. On the left, a farmer looks after two cows which turn the wheel of a mill. The painting is partially damaged. The man on the right, inside the door, is patched; the rest is original. Some pigment is missing.

A man from Isfahan, who was badly afflicted by debts and no longer able to look after his family, decided to board a ship out of desperation. During the journey the ship was caught in a whirlpool, and the only way out to continue her journey safely was someone's sacrifice by disembarking on a nearby desert island. The desperate man from Isfahan volunteered in exchange for a solemn oath from the others that they would take care of his children in Isfahan. He went to the island, saved the ship and started to look around. 'I was under the largest tree I ever saw. Above [it] there was a wide terrace-like surface, and when daylight came I noticed that it was very large. Suddenly a huge bird came, the largest animal I ever saw, and rested on the tree terrace [as if it were its nest].⁹¹ I was frightened by [the possibility] that it would catch me. When the first light of morning appeared, [the bird] spread its wings and flew away.' The giant bird did not show any enmity towards the man, therefore he approached it and one morning, when it was about to fly away as usual, he grabbed one of its legs and flew away holding on to it. 'I held myself firmly until I could see land below me. I saw villages and buildings. [When the bird] was close to the ground I let myself drop on to a pile of straw on the threshing floor of a village. The villagers noticed me. [The bird] flew up and disappeared, and the people gathered around me and brought me to the chief [of the village].' The story ended happily because everybody was amazed by his tales and the village chief gave him some money and let him stay with them for a while. Eventually, the ship which he had saved called at that place. The man from Isfahan joined his companions and returned to his family with the money he had received.

[London fol. 38v: 13–25, fol. 39r: 1–15 and fol. 39v: 1–5; Munich fol. 65r: 22–7 and fol. 65v: 1–15; Cairo I: 188, 29–41, 189 and 190, 1–25]

*The Islands of the Red Sea*⁹²

Cat. 64 (Fig. 3.28)

The Island of the Informing Animal Called 'Jassāsa'⁹³

Fol. 40r, between lines 4 and 5; 80×165 mm

On the right side, a black ship is seen in front of a pink brick-walled

building. The arched door of the building is blue with a gold lock. The painting is partially damaged. The sea below the ship is patched and the door is damaged; the rest is original. Some pigment is missing.

This is the island of the *jassāsa*, an animal from which one can obtain vital information. It is also the place where the Antichrist can be found.⁹⁴ A certain Tamīm al-Dārī⁹⁵ went to this island and received information from the animal about a man who was waiting for him in a monastery.

[London fol. 39v: 21–4 and fol. 40r: 1–3; Munich fol. 66r: 18–25; Cairo I: 191, 28–41 and 192, 1–6]

Cat. 65

The Fish That Provides Mother-of-Pearl

Fol. 40v, between lines 1 and 2; 45×172 mm

A large pale-blue fish. The painting is heavily damaged and retouched. Some pigment is missing.

‘A fish whose length exceeds twenty cubits provides very good mother-of-pearl, which is taken especially from its back.’⁹⁶

[London fol. 40v: 1; Munich fol. 66v: 8–9; Cairo I: 192, 24–6]

Cat. 66

The Fish That Turns into Cotton

Fol. 40v, left side of lines 2–4; 28×78 mm

A generic white fish. The painting is heavily damaged. Much of the white pigment is missing, showing a pale-red priming colour underneath.

After its death, a certain fish has the peculiarity to dry itself and turn into a sort of white cotton; the material is spun and rich textiles called *samākīn* are made out of it.⁹⁷

[London fol. 40v: 2–4; Munich fol. 66v: 5–6; Cairo I missing]

Cat. 67

The Cow Fish

Fol. 40v, between lines 6 and 7; 65×165 mm

A pink fish with an animal face is painted in the top right corner of a water background. The painting is heavily damaged. The fish is almost intact except for the top of its head. Most of the water is patched or retouched.

Another fish is in the shape of a cow and is good to eat.⁹⁸

[London fol. 40v: 5; Munich fol. 66v: 9–10; Cairo I: 192, 27–8]



Col. 12 *The Fish That Provides Mother-of-Pearl*, fol. 40v, 45×172 mm; *The Fish That Turns into Cotton*, fol. 40v, 28×78 mm; *The Cow Fish*, fol. 40v, 65×165 mm.

*The Islands of the Sea of Zanj*⁹⁹**Cat. 68** (Fig. 5.9)**The Snake of the Island of Noise**¹⁰⁰

Fol. 41r, left side of lines 10–14; 45×105 mm

A pale-brown snake with red spots is set within a rocky and grassy landscape. The painting is in good condition. Only the tail of the snake is damaged.

The island is so called because merchants report that there is a town on it made of white rock from which great noise and clamour originate. Nobody lives there, but sailors who have entered the city had the chance to drink good sweet camphored water. In the vicinity of a mountain where a big fire can be seen, a snake appears once a year; the kings of Zanj try to capture it, and when they succeed they cook it and take its skin. Its meat makes them more powerful whereas its skin is used as a mat which is useful against tuberculosis.¹⁰¹

[London fol. 41r: 6–14; Munich fol. 67r: 10–18; Cairo I: 193, 32–40 and 194, 1–5]

Cat. 69 (Fig. 5.9)**The Island of the Blinded Pygmies**¹⁰²

Fol. 41r, under line 19; 60×165 mm

A man wearing a red tunic and turban stands on a grassy foreground with open arms among two naked short men and two storks. The painting is heavily damaged and retouched. The left part of the painting is missing. Some pigment is also missing.

‘Ya‘qūb ibn Ishāq al-Sarrāj¹⁰³ was told [. . .] that on this island there is a city where there are pygmies who are about one cubit tall.’ They are blind because they have to fight with the cranes which thrust their strong beaks into their eyes. ‘This story is told also by Aristotle in his *Book on Animals*:¹⁰⁴ the cranes come from Khorasan and fly south along the shores of the Nile until they reach the island of the pygmies.’

[London fol. 41r: 15–19 and fol. 41v: 1–2; Munich fol. 67r: 18–26; Cairo I: 194, 6–32]

Cat. 70 (Fig. 3.30)**The Island of the Dog-headed People**¹⁰⁵

Fol. 41v, between lines 5 and 6; 88×170 mm

Two dog-headed men wearing gold collars are set within a landscape and face a yellow brick building on the left. Four persons wearing tunics are seen in left profile kneeling under an arch of the building. The vault of the building forms a ‘broken’ arch. The painting is in good condition. Some pigment is missing.

A ferocious people with human bodies and dog’s heads live on this island. The story is told by Ya‘qūb ibn Ishāq who spoke with

a scar-faced man who had managed to escape from that island. The dog-headed people used to capture their victims and lock them in a building, then fed them until they were fat enough to be eaten.

[London fol. 41v: 2–13; Munich fol. 67v: 1–7; Cairo I: 194, 33–41 and 195, 1–28]

Cat. 71 (Fig. 5.10)

The Island of the Soft-legged People

Fol. 42r, between lines 2 and 3; 85×170 mm

On the right side, a naked man with malleable legs sits on the shoulders of a man in a red tunic and picks red fruit from a tall plant nearby. Two other soft-legged men kneel on the grass. A second tree is on the left. The painting is partially damaged. The lower part of the man's body and the soft-legged man who rides him are patched; the rest is original. Some pigment is missing.

The story is told by the same man who escaped from the dog-headed people. The soft-legged men are handsome people whose legs have no bones, so they are unable to walk. When they meet other men, they jump on their shoulders and twist their legs around the necks of their victims, beating them violently and obliging them to do whatever they want. They are very fond of fruit. The story-teller says that he managed to free himself from this unpleasant situation by giving the soft-legged man some fermented grape juice which inebriated him, so that he could beat him to death.

[London fol. 41v: 15 and fol. 42r: 1–5; Munich fol. 67v: 8–18 and fol. 68r: 1–4; Cairo I: 195, 30–40 and 196, 1–5]

Cat. 72

Sawfish (*minshār*)

Pristis, Fam. *Pristidae*, Ord. *Rajiformes*¹⁰⁶

Fol. 42r, under line 11; 50×170 mm

A large pale-blue fish is provided with a row of sharp black spines on its back and a gold 'tusk' protruding from its head. The painting is slightly damaged. Some pigment is missing near the tail.

The sawfish is a terror for the sailors because it is able to tear their ships to pieces. Its awful weapon is a row of black teeth like a saw running from head to tail. These are one to two cubits long,¹⁰⁷ and two ten-cubit-long bones protrude from its head. It is able to make a frightful noise and to spout water from an orifice with such a force that it reaches remarkable distances.¹⁰⁸

[London fol. 42r: 6–10; Munich fol. 68r: 7–12; Cairo I: 196, 8–24]



Col. 13 Sawfish (*minshār*), fol. 42r, 50×170 mm.

Cat. 73**Whale** (*bāl*)*Ord. Cetacea*¹⁰⁹

Fol. 42v, between lines 6 and 7; 84×170 mm

A generic large pale-blue fish. The painting is partially damaged. Some pigment is missing.

'The Whale is a fish four- to five hundred cubits long. Sometimes it is possible to see the upper part of its fin like a sail on the surface of the sea, or its head that spouts a great quantity of water to an incredible height. The sailors are frightened by this monster of the

sea. [...] When its moment to die comes, the whale throws itself on land until it perishes and it remains beached on the seashore like a gigantic mountain.' The people of Zanj know that its body yields excellent ambergris,¹¹⁰ so they take it.

[London fol. 42v: 1–9; Munich fol. 68r: 12–15 and fol. 68v: 2–6; Cairo I: 196, 30–9 and 197, 5–23]



Col. 14 *Whale* (*bāl*), fol. 42v, 84×170 mm.

*The Islands of the Western Sea***Cat. 74** (Fig. 3.31)**The Island of the Talismanic Statue on the Tower**

Fol. 43r, left side of lines 11–19 and below line 19; 140×170 mm

On the left, a tiled greyish-blue tower has a large gold terrace on top. On the right is a landscape with grass and water. The painting is heavily damaged. The left side and the upper section are patched; the statue once on the top of the tower is no longer visible. Parts of the tower and the landscape are original. Much pigment is missing on the tower, revealing pale-red pigment underneath.

'On this island, which lies where the two seas merge,¹¹¹ there is a sort of tower made of hard rock, very strong and with no door. On its top it is possible to see the statue of a man shining like gold with his arm extended and his finger pointing to the Black Sea. It is said that [this] is a talisman used by a king to prevent his enemies from attacking him. The tower is more than one hundred cubits tall.'¹¹²

[London fol. 43r: 10–18; Munich fol. 69r: 9–12; Cairo I: 198, 33–40 and 199, 1–3]¹¹³

Cat. 75 (Fig. 3.29)**The Island of the Sleep-inducing Trees and Flowers**

Fol. 43v, right side of lines 5–7 and between lines 7 and 8; 75×100 mm

On the left, a man leaning against a tree is asleep. A tall plant with red flowers and another tree are visible on the right. The painting

is partially damaged. The foreground is patched; the rest is original. Some pigment is missing.

'The author of the *Tuhfat al-gharā'ib* mentions that on this island there are plenty of trees and flowers.¹¹⁴ Whoever smells their scent falls asleep for one hour.'¹¹⁵

[London fol. 43v: 4–6; Munich fol. 69r: 21–2; Cairo I: 199, 17–21]

Cat. 76 (Fig. 3.29)

The Island of the Church of the Crow¹¹⁶

Fol. 43v, left side of lines 8–12 and between lines 12 and 13; 174×170 mm

On the left, a black crow with a gold roundel on its wing stands atop the dome of a tall building. The building is made of light blue bricks and is partially hidden by pale-brown and red rocky formations where a second crow is visible. On the right is a grassy landscape. The painting is heavily damaged. The right part of the painting is patched; the rest is original. Much pigment is missing.

'Abū Hāmid al-Andalusī¹¹⁷ says that this island is on the western side of the Black Sea. It is well-known because of its church built in the rock.' This shrine is known as 'the Church of the Crow' because a crow always stands atop its dome and is able to say the exact number of visitors who enter the church.¹¹⁸

[London fol. 43v: 8–13 and fol. 44r: 1–3; Munich fol. 69r: 12–18; Cairo I: 199, 22–40]

Cat. 77 (Fig. 4.9)

The Sheep of the Island of Jālīṭa¹¹⁹

Fol. 44r, between lines 8 and 9; 85×168 mm

A grassy landscape with some red flowered plants amidst which are six differently coloured goats and rams with gold horns. The painting is slightly damaged. On the right there is a patch over the legs of one of the animals, whereas the rest is original. Some pigment is missing.

This island is in the Mediterranean on the way to Alexandria. Its peculiarity is that a great number of large fat sheep live there, and since few sailors call at that place, they are free to reproduce and proliferate. There are also many trees.

[London fol. 44r: 4–8; Munich fol. 69r: 22–7; Cairo I: 200, 1–14]

Cat. 78 (Fig. 4.9)

The Island of the Monastery

Fol. 44r, left side of lines 10–17; 75×110 mm

On the right, a haloed man wearing a red tunic stands next to a building, a landscape completing the illustration. The painting is heavily damaged. The building is patched; so is the lower part of the figure of the man, while the rest is original. Some pigment is missing.

The island is situated near Constantinople. It is always underwater except one day every year when the waters withdraw so that it

is possible for pilgrims to visit its monastery and bring presents. As soon as sunset approaches on that day, the waters flood the whole island and another year must pass until the pilgrims are able to visit again.¹²⁰

[London fol. 44r: 9–17; Munich fol. 69r: 27 and fol. 69v: 1–3; Cairo I: 200, 15–27]

Cat. 79

The Sea Animal That Clings to the Rock¹²¹

Fol. 44v, right side of lines 5–12; 70×112 mm

A man in a landscape picks an orange object from a low tree in front of him. A large gold flower is on the right. The painting is damaged. The body of the man and part of the landscape are patched; the rest is original.

While he was on a certain island, a sailor noticed some orange-like objects floating on the sea. He grabbed one of them, and it turned out to be an animal which clung on to a rock and would

not allow him to uproot it from that place. 'I wanted to cut off [a piece of the animal] with a knife but the blade did not work on it. It did not show any eyes or head. [...] A saliva-like liquid sprung out from its mouth which was soft, agreeable, dark-red coloured, and not different from [the taste of the juice of] an orange.'

[London fol. 44v: 4–14; Munich fol. 69v: 9–14; Cairo I: 201, 1–13]¹²²



Col. 15 *The Sea Animal That Clings to the Rock*, fol. 44v, 70×112 mm.



Col. 16 *The Fish Called the 'Old Jew'*, fol. 44v, 65×90 mm.

Cat. 80

The Fish Called the 'Old Jew'

Fol. 44v, left side of lines 18–24; 65×90 mm

A bird-like animal set within a landscape. The painting is entirely damaged. Only the grass on the upper part of the painting and the top of the head are original; the rest is patched.¹²³

'The Old Jew'¹²⁴ is a fish with a human face on which grows a white beard, a frog-like body, and hair like a cow. It comes out of the sea every Saturday at dusk and goes back on Sunday at sunset.¹²⁵

[London fol. 44v: 19–23; Munich fol. 69v: 24–7 and fol. 70r: 1; Cairo I: 201, 29–37]

Cat. 81**The Mule Fish**

Fol. 45r, between lines 5 and 6; 60×170 mm

A generic large white fish. The painting is heavily damaged. Some parts are missing. Some pigment is missing.

'The Mule Fish is a huge fish which is able to give a terrible cry [like a mule braying] when hunted. It is not ferocious and is often sought after by other big fishes.¹²⁶ It is found between the two seas¹²⁷ towards the Sea of Rūm.

[London fol. 45r: 1–5; Munich fol. 70r: 8–9; Cairo I: 202, 1–11]



Col. 17 *The Mule Fish*, fol. 45r, 60×170 mm.

Cat. 82**Flounder** (*hūt mūsā wa yūsha*)¹²⁸

Platichthys flesus, Fam. *Pleuronectidae*, Ord. *Pleuronectiformes*¹²⁹

Fol. 45r, left side of lines 10–14; 45×97 mm

A pale-blue fish is set against a background of pink volutes. The painting is heavily damaged. Some parts are missing. Some pigment is also missing.



Col. 18 *Flounder* (*hūt mūsā wa yūsha*), fol. 45r, 45×97 mm.

'The Flounder lives near the city of Ceuta.¹³⁰ It is the descendant of the fish grilled by the two prophets (Moses and Joseph) who ate half of it whereas the other half continued to live in the sea. [. . .] Thus it has the appearance of a fish whose flesh is only on one side and only skin and bones on the other; it is regarded as a blessed creature.¹³¹

[London fol. 45r: 7–10 and 12–14; Munich fol. 70r: 11–13 and 16–17; Cairo I: 202, 17–35]¹³²

Cat. 83**The Fish That Keeps Moving When Cooked**

Fol. 45v, right side of lines 4–6; 38×86 mm

A generic blue fish. The painting is entirely damaged. Only the top of the head is visible; the rest of its body is missing.

'There is a fish that continues to move if a part of it is cut and sometimes it is able to upturn the pot where it is cooking.¹³³ Only after it is well cooked does it stop moving, and its flesh is very good.'

[London fol. 45v: 2–5; Munich fol. 70v: 8–9; Cairo I: 203, 5–11]

Cat. 84**Swallow Fish** (*khuttāf*)

Exocoetus volitans, Fam. *Exocoetidae*, Ord. *Atheriniformes*¹³⁴



Col. 19 *The Fish That Keeps Moving When Cooked*, fol. 45v, 38×86 mm; *Swallow Fish (khuttāf)*, fol. 45v, 35×80 mm; *The Fish as Large as a Minaret*, fol. 45v, 108×170 mm; *The Fish That Survives on Land*, fol. 45v, 29×84 mm.

Fol. 45v, left side of lines 7–10; 35×80 mm
A pale-brown fish has red and gold wings. The painting is heavily damaged and retouched. Some parts are missing. Some pigment is missing.

‘The Swallow Fish has two black wings on its back, by means of which it is able to fly in the air and then return to water.’¹³⁵ [London fol. 45v (text damaged); Munich fol. 70v: 10; Cairo I: 203, 13–18]

Cat. 85

The Fish as Large as a Minaret

Fol. 45v, right side of lines 10–13 and between lines 13 and 14; 108×170 mm

On the right, a large fish with a pale-blue body and a pale-violet head leaps out of the water. On the left is a black ship. The painting is partially damaged. Part of the water is patched and retouched; the rest is original. Some pigment is missing.

‘A huge fish springs out of the water like a minaret¹³⁶ and throws itself against the ships.’ The only way to chase it away is by making a big noise with trumpets and drums.¹³⁷ [London fol. 45v: 6–10; Munich fol. 70v: 11–15; Cairo I: 203, 17–22]

Cat. 86

The Fish That Survives on Land

Fol. 45v, right side of lines 15–17; 29×84 mm

A small red fish has gold fins. The painting is slightly damaged. Some pigment is missing.

‘A big fish remains on land when the water decreases and keeps moving about for six hours; when it stops moving two wings appear from below its skin and it can fly back to the sea.’

[London fol. 45v: 11–13; Munich fol. 70v: 15–16; Cairo I: 203, 23–9]

*The Islands of the Caspian Sea*¹³⁸

Cat. 87

The Island of the Snakes

Fol. 46r, left side of lines 19–25; 65×147 mm

A man in a landscape, surrounded by several coiling snakes, holds a long stick. Three eggs are visible in the foreground. The painting is slightly damaged. Much pigment is missing.

This island is located near another one on which is found a mountain made of black clay.¹³⁹ There are so many snakes that it is impossible to put a foot on its ground without trampling on them.



Col. 20 *The Island of the Snakes*, fol. 46r, 65×147 mm.

The wonder of this place is that sea-birds lay their eggs amidst the snakes, which are not interested in eating their eggs or the newborn chicks. The people manage to collect the eggs by means of sticks with which they chase the snakes away.¹⁴⁰

[London fol. 46r: 14–24; Munich fol. 71r: 5–10; Cairo I: 204, 27–40]¹⁴¹

Cat. 88 (Fig. 4.10)

The Island of the Sheep¹⁴²

Fol. 46v, between lines 5 and 6; 93×171 mm

Seven rams with gold horns are illustrated in different postures within a landscape of grass and two tall flowered plants. The painting is in good condition. Some pigment is missing.

‘Sallām al-Turjumānī, the envoy of the caliph to the land of the Khazars,¹⁴³ said that on an island between the Caspian Sea and the land of Bulghār there are as many mountain sheep as locusts. On this island many trees and herbs grow, and plenty of wells are found.’

[London fol. 46v: 3–5; Munich fol. 71r: 11–14; Cairo I: 205, 8–18]

Cat. 89

The Girl inside the Body of a Large Fish

Fol. 46v, below line 9; 76×170 mm

On the left, a naked woman with long hair stands on the ground, a bearded man behind her. On the right, the head of a large red fish projects from the water. A plant completes the painting on the right. The illustration is partially damaged. The tunic of the man is retouched. Some pigment is missing.

‘From Sallām al-Turjumānī, the envoy of the caliph to the land of the Khazars: “One day I was [at the court] of the King of Khazar and I saw the [fishermen] hunting a very large fish. They pulled it out [from the water] with the help of ropes. One of its gills was opened and [suddenly] a red and white [-skinned], long-haired beautiful girl sprang out from [the fish]. They placed her on land and she [began] to



Col. 21 *The Girl inside the Body of a Large Fish*, fol. 46v, 76×170 mm.

beat her face, tear her hair and cry. God the Most High had created on her body a coating similar to a thick cloth which ran from her navel to the knees, as if it was a tight loincloth [imprisoning] her body. [The fishermen] choked her until she died.”

[London fol. 46v: 6–9 and fol. 47r: 1–2; Munich fol. 71r: 17–24; Cairo I: 205, 18–37]

Cat. 90 (Fig. 3.21)

The Sea Dragon

Fol. 47r, between lines 6 and 7; 90×170 mm

A large serpent swims in the water. Its skin is white with grey scales. In the background, light coloured red and blue ‘Chinese’ clouds are visible. The painting is partially damaged. A small patch is placed over the body of the reptile and over the water. Some pigment is missing.

The huge Sea Dragon is the largest animal living in the water. It looks like a black snake that emerges from the water like a cloud. It is reported that the people of Gog and Magog eat its flesh.¹⁴⁴

[London fol. 47r: 2–5; Munich fol. 71r: 24–5 and fol. 71v: 1–4; Cairo I: 205, 37–9 and 206, 1–8]

The Animals of the Sea



Col. 22 *Sea Hare* (arnab al-bahr), fol. 47v, 60×100 mm.

Cat. 91

Sea Hare (arnab al-bahr)

Fam. *Aplysiaceae*, Ord. *Aplysiomorpha*, Class *Gastropoda*¹⁴⁵

Fol. 47v, left side of lines 16–21; 60×100 mm

A pale-blue animal has four small brown legs and a fish tail. The painting is entirely damaged, only the tail

being original; the rest of the body is retouched. In addition, its head is missing.

This reddish animal living in a shell 'has the head of a hare and the body of a fish. [. . .] Some of its parts are similar to the leaves of the alkali plant.'

[London fol. 47v: 16–19; Munich fol. 72r: 16–20; Cairo I: 208, 2–7]

Cat. 92 (Fig. 3.22)

Sea Dragon (*tinnīn*)¹⁴⁶

Fol. 48r, between lines 12 and 13; 90×166 mm

A large pale-blue snake has a Chinese dragon's head. Five small gold 'snakes' protrude from its neck and a gold horn is on the top of its head. The mouth is open and shows long sharp teeth and a long red tongue. A Chinese 'flaming-pearl' gold cloud is in front of its mouth. The painting is partially damaged. The tail is patched. Pigment is missing.

'It is a gigantic animal: it is terrible to look at, has a long body, a huge head whose eyes are bigger than the mouth, and enormous teeth. [All] animals of land and sea are terrified [at the sight of it]. When it moves about, high waves rise on the [surface of the] sea. [. . .] It is born on the land as a snake, then it grows bigger and bigger until God decides that it is too dangerous and throws it into the sea. When it becomes too dangerous in the sea because of its ever-growing body, God throws it on the land of Gog and Magog [where it dies]. [. . .] The colour of its skin, which is scaled like a fish, is similar to the fur of a leopard.'¹⁴⁷

[London fol. 48r: 5–10; Munich fol. 73r: 18–19 and fol. 73v: 1–3; Cairo I: 210, 32–40 and 211, 1–9]

Cat. 93 (Fig. 5.11)

Catfish (*jarrī*)

Silurus, Fam. *Siluridae*, Ord. *Siluriformes*¹⁴⁸

Fol. 48v, right side of lines 2–5; 40×80 mm

A blue fish has six fins and a monstrous head. The painting is entirely damaged, only the head being partly original; the rest of the body is patched.

'It is [also] called *mār māhīj*¹⁴⁹ and is a cross between a snake and a fish. Al-Jāhiz¹⁵⁰ records that it eats rats, being fond of them more than the cats.¹⁵¹ This is because the rats of the granaries appear by night in the streets of Basra close to the seaside, where the Catfish hides [and waits for them].'

[London fol. 48v: 1–4; Munich fol. 73v: 14–17; Cairo I: 211, 24–32]

Cat. 94 (Fig. 5.11)

Lamprey (*julkā*)

Petromyzon, Fam. *Petromyzonidae*, Ord. *Petromyzoniformes*¹⁵²

Fol. 48v, left side of lines 9–12; 40×85 mm

A slender red fish has six fins and a proportionally large head. The painting is in good condition. Some pigment is missing.

[This fish] is similar to the Catfish (*mār māhīj*).¹⁵³ It appears in the early morning and [again] in the evening in search of food. If it is killed and sectioned, no blood flows from its body. [. . .] [Eating] its flesh makes women put on weight.'

[London fol. 48v: 8–10; Munich fol. 74r: 3–7; Cairo I: 211, 40 and 212, 1–2]

Cat. 95 (Fig. 5.11)

Dolphin (*dulfin*)

Delphinus delphi, Fam. *Delphinidae*, Ord. *Cetacea*¹⁵⁴

Fol. 48v, right side of lines 14–17; 40×80 mm

A pale-green fish has two large pink wing-like fins on its back. The painting is in good condition. Some pigment is missing.

'It is a blessed animal and the sailors cheer when they see it. This is due to the fact that when it sees that someone is drowning, it soon goes to his rescue by placing itself under his body and letting him grasp its tail with his hands. It then leads him to the seashore. [This fish] is provided with a pair of long fins.'

[London fol. 48v: 12–15; Munich fol. 74r: 7–11; Cairo I: 212, 3–11]

Cat. 96 (Fig. 5.11)

The Fish Called 'Dhūbyān'¹⁵⁵

Fol. 48v, left side of lines 19–24; 50×85 mm

A small sinuous pale-blue fish. The painting is slightly damaged. Some pigment is missing.

'It is a well-known species of fish. If its meat is placed on a [body] part wounded by a blade or a spike, it will be healed.'

[London fol. 48v: 19–21; Munich fol. 74r: 14–16; missing in Cairo]

Cat. 97

Torpedo (*ra'āda*)

Torpedo, Fam. *Torpedinidae*, Ord. *Rajiformes*¹⁵⁶

Fol. 49r, left side of lines 1–4; 37×92 mm

A generic fish is set against a background of pink volutes. The painting is entirely damaged. The tail, head and fins are only partially visible; the rest of the body is missing.

'It is a small "electrical" fish: when the fishermen happen to touch the rope of the net in which it has been caught, they suddenly shiver as if they were cold.'

[London fol. 48v: 23–5; Munich fol. 74r: 20–1; Cairo I: 212, 16–20]

Cat. 98

Pilot Fish (*zamūr*)

Naucrates ductor, Fam. *Carangidae*, Ord. *Perciformes*¹⁵⁷

Fol. 49r, right side of lines 11–14; 36×67 mm

A small sinuous pale-blue fish is set against a background of pink volutes. The painting is slightly damaged. Some pigment is missing.

'It is a blessed fish, cherished by both sailors and fishermen, who release it when they find it in their nets. They say that it likes humans and it is a sort of guide for them on the seas.'

[London fol. 49r: 10–12; Munich fol. 74v: 2–7; Cairo I: 212, 35–40]

Cat. 99

Crab (*saraṭān*)

*Ord. Decapoda, Infraord. Brachyura of the Crustacea*¹⁵⁸

Fol. 49r, left side of lines 16–21; 55×93 mm

The entire painting is damaged. Only a fragment of watery background is visible.

'This animal has no head; its eyes are on the shoulders, its mouth on the chest, and it has eight legs by means of which it moves sideways. It changes its skin seven times each year. Its den has two entrances, one oriented toward the water, the other to the land; when the time comes to change its skin [the Crab] blocks the water-entrance in order to hide from other [sea] animals while it is in such a weak condition.'

[London fol. 49r: 16–22; Munich fol. 74v: 12–21; Cairo I: 213, 6–16]

Cat. 100

Lobster (*saraṭān al-bahr*)

*Homarus, Fam. Nephropidae, Ord. Decapoda*¹⁵⁹

Fol. 49v, left side of lines 7–10;

35×81 mm

A grey animal has a body formed by four swaying 'ribbons'. The painting is partially damaged. Much pigment is missing, revealing pale-pink priming pigment underneath.

'It is a very strange animal whose head looks as though it is formed by five snakes.'

[London fol. 49v: 8–9; Munich fol. 75r: 7–8; Cairo I: 214, 14–17]



Col. 23 *Torpedo* (ra'āda), fol. 49r, 37×92 mm; *Pilot Fish* (zamūr), fol. 49r, 36×67 mm; *Crab* (*saraṭān*), fol. 49r, 55×93 mm.



Col. 24 *Lobster* (*saraṭān al-bahr*), fol. 49v, 35×81 mm; *Skink* (*saqanqūr*), fol. 49v, 48×86 mm.

Cat. 101**Skink** (*saqanqūr*)*Scincus scincus*, Fam. *Scincidae*, Ord. *Squamata*¹⁶⁰Fol. 49v, right side of lines 14–20; ?×86 mm¹⁶¹

The painting is entirely damaged. Only the fins of the back of a fish are visible.

‘Ibn Sīnā¹⁶² mentions that this animal is a water monitor [*waral*, see cat. 343] and is hunted in the Nile in Egypt. Other [authorities] say that it is an offspring of the crocodile [*timsāḥ*]: when the [eggs] laid by the crocodile on the land [hatch], the newborn heading into the water will be crocodiles whereas those [remaining] on the sand will be skinks.’
[London fol. 49v: 13–15; Munich fol. 75r: 13–18; Cairo I: 214, 26–32]

Cat. 102–3**Turtle and Tortoise** (*sulahfā*)Ord. *Chelonia*¹⁶³Cat. 102: fol. 50r, left side of lines 2–9; 70×125 mm¹⁶⁴

Two snakes are placed in a landscape formed by a rock and a tall plant on the right. A stripe of grass painted upside down borders the bottom of the illustration: an island is probably intended to be illustrated. A large gold flower is visible. The painting is entirely damaged, only the plant on the right, the snake on the left, and the

grass at the bottom being original; the rest is patched and retouched.



Cat. 103: fol. 50r, left side of lines 16–21; 35×100 mm

A snake coils around a tortoise in a landscape. The painting is entirely damaged, only the edges being original; the rest is patched.

‘There are water- and land-tortoises. Turtles [water-tortoises] are much larger [than tortoises].’ Sometimes sailors mistake them for islands on which real vegetation grows. ‘The tortoise grasps the tail of a snake and bites it; the snake tries to hit [the tortoise in retaliation], but it [only manages] to beat itself against the ground until it perishes.’¹⁶⁵

[London fol. 49v: 21–2 and fol. 50r: 7–9; Munich fol. 75r: 25–7 and fol. 75v: 6–7; Cairo I: 215, 4–12 and 35–8]

Col. 25 *Turtle and Tortoise* (*sulahfā*), fol. 50r, 70×125 mm.



Col. 26 *Turtle and Tortoise* (*sulahfā*), fol. 50r, 35×100 mm; *Fish* (*samak*), fol. 50r, ?×63 mm.

Cat. 104**Fish** (*samak*)¹⁶⁶

Fol. 50r, right side of lines 23–5; ?×63 mm

The painting is entirely damaged. Only the tail of a fish and part of the background of pink volutes survive in the lower part of the illustration.

‘The [different] species of fish are very many and each one of them has a specific name.’

[London fol. 50r: 22–3; Munich fol. 76r: 3; Cairo I: 216, 25–7]

Cat. 105**Carp** (*shabbūt*)

Cyprinus carpio, Fam. *Cyprinidae*, Ord. *Cypriniformes*¹⁶⁷

Fol. 50v, left side of lines 5–8; 40×90 mm

A pale-blue fish. The painting is entirely patched.

‘It is a well-known fish, one cubit long and four “fingers”¹⁶⁸ wide. It is found in the Tigris and its flesh is delicious. Al-Jāhīz says that when the Carp is caught in the nets of fishermen, it tries to free itself jumping high: [. . .] it is able to perform jumps as high as ten cubits.’

[London fol. 50v: 5–10; Munich fol. 76r: 12–16 and 19; Cairo I: 217, 2–8 and 13–14]

Cat. 106**Ray or Skate** (*shifnīn*)

Raja, Fam. *Rajidae*, Ord. *Rajiformes*¹⁶⁹

Fol. 50v, left side of lines 11–14; 40×90 mm

A pale-brown fish has a twisted red horn above its head. The painting is entirely patched although it is possible to see part of its original features under the patch.

This animal is black and has a strange shape. When it grows up, the colour of its scales changes.

[London fol. 50v: 11–14; Munich fol. 76r: 19–22; Cairo I: 217, 15–20]

Cat. 107**Anchovy** (*ṣīr*)

Engraulis, Fam. *Engraulidae*, Ord. *Clupeiformes*¹⁷⁰

Fol. 50v, right side of lines 16–18; 30×72 mm

A small grey fish. The entire painting is patched.

‘It is a small fish which has been named by the people of Syria.’

[London fol. 50v: 15; Munich fol. 76r: 22–3; Cairo I: 217, 21–2]



Col. 27 *Carp* (*shabbūt*), fol. 50v, 40×90 mm; *Ray or Skate* (*shifnīn*), fol. 50v, 40×90 mm; *Anchovy* (*ṣīr*), fol. 50v, 30×72 mm; *Frog* (*ḍifḍī'*), fol. 50v, 45×90 mm.

Cat. 108**Frog** (*difdi*)¹⁷¹*Rana*, Fam. *Ranidae*, Ord. *Anura* of the *Amphibia*¹⁷²

Fol. 50v, left side of lines 19–23; 45×90 mm

A green frog is set amongst vegetation. The painting is heavily damaged. The head, one of the legs and some leaves are original; the rest is patched.

‘[The Frog] is an animal that lives on land. Its eyes protrude, and its senses of hearing and sight are very sharp.’ One should not kill the frog because it is the blessed animal that brought water to Abraham when he was in the fire.¹⁷³ It croaks only at night and stops as soon as it sees daylight. If one immerses a frog into wine, it appears as if it was dead, but water restores it to life.

[London fol. 50v: 19–21 and fol. 51r: 1–2; Munich fol. 76r: 24–7; Cairo I: 217, 25–34 and 218, 1–7]

Cat. 109 (Fig. 5.12)**Leech** (*‘alaq*)*Hirudo medicinalis*, Class *Hirudinea*, Ord. *Annelida*

Fol. 51r, left side of lines 17–21; 50×90 mm

Six small pale-blue animals resemble tadpoles. The painting is slightly damaged. Some pigment is missing.

‘It is a black animal, the size of a little finger. It is found in the water [...] and is used by physicians as a medical treatment to remove blood [from the body of a sick person].’

[London fol. 51r: 18–20; Munich fol. 76v: 23–5; Cairo I: 219, 21–5]

Cat. 110**A Species of Turtle** (*ghitā*)¹⁷⁴

Fol. 51v, left side of lines 1–4; 43×85 mm

A green tortoise-like animal has a gold roundel on the top of its shell and four short legs. Its head and a long neck protrude from the carapace. The painting is in good condition. Some pigment is missing.

‘This animal has a carapace and is found in India in the water during the spring, [only] in places where the spikenard [*nārdīn*, see cat. 239] grows. It is also found in the land of Babel. It is a strange animal because of its shell, and its skin is a little delicate. It has



Col. 28 *A Species of Turtle* (*ghitā*), fol. 51v, 43×85 mm.

two ears and two eyes and can withdraw its head into the shell. Its carapace is valuable.'

[London fol. 51v: 1–5; Munich fol. 77r: 5–9; Cairo I: 220, 1–5]

Cat. 111 (Fig. 5.13)

Hippopotamus (*faras al-mā'*)¹⁷⁵

Hippopotamus amphibius, Fam. Hippopotamidae, Ord. Artiodactyla¹⁷⁶

Fol. 51v, right side of lines 10–16; 70×87 mm

A horse with gold, black and red feathery wings is seen in left profile in a running posture. Its skin is pale-blue with black spots and it has a long furry tail. Tail and hind legs project outside the frame. The painting is damaged. The head, legs, tail and wing are original. The body is patched.

'It is reported that [this animal] is like the land horse, but it has a larger mane and tail and a more pleasant colour; its hoof is split like that of a wild cow and its size is between a horse and a donkey. The *faras al-mā'* goes to the land and mates with the horse: their offspring is of great beauty. Shaykh Abū Qāsim¹⁷⁷ [...] mentioned that he once saw a Hippopotamus proceeding from the sea: it was all black with white spots like silver coins, and it mated with a mare. [After some time] a foal was born which was similar to its father and had a strange body.'

[London fol. 51v: 9–18; Munich fol. 77r: 12–25; Cairo I: 220, 16–33]¹⁷⁸

Cat. 112

A Cetacean (*qaṭā*)

Ord. Cetacea¹⁷⁹

Fol. 52r, between lines 3 and 4;
74×168 mm

A large white fish has an open mouth revealing sharp black teeth and a red tongue. The painting is damaged. Parts of the tail and the body are patched; the rest is original. Pigment is missing.

'[This] is a huge fish; it is said that it is possible to use one of its ribs to make a bridge.'

[London fol. 52r: 3; Munich fol. 77v: 6–7; Cairo I: 221, 23–5]



Col. 29 A Cetacean (*qaṭā*), fol. 52r,
74×168 mm.

Cat. 113 (Fig. 5.14)

Beaver (*qunduz*)

Castor fiber, Fam. Castoridae, Ord. Rodentia¹⁸⁰

Fol. 52r, left side of lines 5–9; 45×85 mm

A pale-grey mouse-like animal exits its den, which has two entrances and is placed on a rocky foreground with some plants and water. The painting is slightly damaged. The animal's head is no longer visible. Some pigment is missing.

'It is both a land- and a water animal and lives near large rivers in the land of Aysū.¹⁸¹ It builds its house on land, close to the river, building tall rows [of wooden sticks]. Its house has two entrances, one looking out to the land and the other to the river.'

[London fol. 52r: 5–7 and 9; Munich fol. 77v: 8–10; Cairo I: 221, 28–31 and 35–7]

Cat. 114

Sea Urchin (*qunfudh al-mā'*)

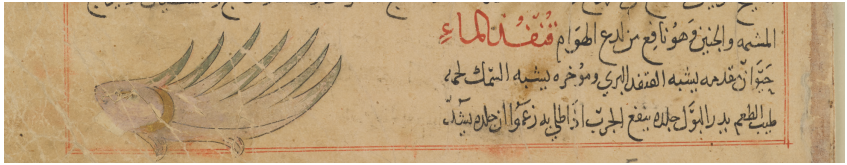
*Class Echinoidea, Phyl. Echinodermata*¹⁸²

Fol. 52r, left side of lines 15–17; 30×87 mm

A pale-violet and white fish has seven long pale-greyish-blue spines along its back. The painting is in good condition. Some pigment is missing.

'The forepart of this animal looks like a land hedgehog, while the rear looks like a fish. Its meat is very good.'

[London fol. 52r: 15–17; Munich fol. 78r: 11; Cairo I: 222, 13–17]



Col. 30 *Sea Urchin* (*qunfudh al-mā'*), fol. 52r, 30×87 mm.

Cat. 115

Narwhal (*qūqī*)

*Monodon monoceros, Fam. Monodontidae, Ord. Cetacea*¹⁸³

Fol. 52v, left side of lines 2–5; 40×90 mm

A pale-grey fish has a curving gold horn on its head. The painting is in good condition.

'It is a strange species of fish provided with a solid spike on its head, which it uses as a weapon. [...] When it is hungry, it attacks another animal and thrusts its weapon into the body of the victim.'

[London fol. 52v: 2–6; Munich fol. 78r: 19–21; Cairo I: 222, 23–30]



Col. 31 *Narwhal* (*qūqī*), fol. 52v, 40×90 mm.

Cat. 116**Otter** (*kalb al-mā'*)*Lutra lutra*, Fam. Mustelidae, Ord. Carnivora¹⁸⁴

Fol. 52v, right side of lines 10–14; 50×75 mm

A yellow animal similar to a bear walks on a grassy foreground. The painting is in good condition. Some pigment is missing.

'It is a well-known animal. It has small forelegs and longer hind legs. It covers its tail with mud [in order to deceive] the crocodile [which therefore cannot smell its scent], then enters its body, cuts its bowels into pieces and eats them, then it hurries away.'¹⁸⁵
[London fol. 52v: 9–11; Munich fol. 78r: 26–7; Cairo I: 222, 41 and 223, 1]



Col. 32 Otter (*kalb al-mā'*), fol. 52v, 50×75 mm.

Cat. 117**Shark** (*kawsaj*)¹⁸⁶

Fol. 52v, left side of lines 19–23; 45×90 mm

A pale-blue fish has many sharp fins or spines. The painting is heavily damaged. Most of its body is patched. The tail and head are original. Some pigment is missing.

'[This] is a well-known fish, one cubit long and provided with teeth like a man's by means of which it attacks other animals. The Shark is often found around Basra. Al-Jāhiz reports that a good fat called *kabd*¹⁸⁷ is found in its abdomen and it is hunted for this reason. It is fished mostly at night.'

[London fol. 52v: 20–4; Munich fol. 78v: 15–20; Cairo I: 223, 23–31]



Col. 33 Shark (*kawsaj*), fol. 52v, 45×90 mm.

The Sphere of Earth

Stories Related to Geographical Places: Mountains, Rivers, Springs and Wells

Cat. 118 (Fig. 3.35)

The Images of Mount Bisutūn¹⁸⁸

Fol. 56r, below line 14; 115×167 mm

Greyish-blue rocky formations, water and grass form a frame inside which three gold figures are placed against a red background. In the middle, a crowned horseman holds a sceptre; on the right, a woman sits (both figures are haloed); on the left, a man wearing trousers digs the soil with a shovel. The painting is partially damaged. There are some patches over the rocky frame. The scene in the centre of the illustration is original. Some pigment is missing.

‘[Bisutūn] is between Hulwan and Hamadan. It is a tall mountain the summit of which is not [possible] to climb. Mis‘ar ibn Muhallhal¹⁸⁹ said: “It is one parasang away from Qarmisin.¹⁹⁰ In a grotto, an *ivān* is found on the walls of which a picture of Shirīn has been drawn [together with one of] Khusraw Parvīz.¹⁹¹ In the centre of the *ivān* there is the image of Parvīz riding his horse Shabdīz in relief on the rock. He wears a coat of mail as if it were made of iron. [...] And among Parvīz’s hands [*sic*] is a man dressed as a worker with a cap on his head: he firmly holds in his hands an iron shovel as if he were digging the ground and the water which rises from below his feet.’

[London fol. 56r: 9–14; Munich fol. 82v: 16–21; Cairo I: 234, 20–38]

Cat. 119 (Fig. 5.15)

The Sleepers of Mount Raqīm¹⁹²

Fol. 58r, between lines 13 and 14; 75×168 mm

Four men and a dog are asleep on the ground inside a greyish-blue rocky formation in the middle of a landscape with plants and grass. The entire painting is damaged. The plants surrounding the rocks and the central roundel showing the four men and the dog are original. The rocks are completely repainted. The number of figures was originally more than four.¹⁹³

‘[Mount Raqīm] is mentioned in the Qur‘an. It is said that Raqīm¹⁹⁴ is the name of a mountain with a cave in the land of Rūm between ‘Amūrya and Nīqīya. It is reported from ‘Ubāda ibn al-Šāmit (God bless him):¹⁹⁵ “Abū Bakr al-Šiddīq (God bless him)¹⁹⁶ sent me as the envoy to the king of Rūm in order to convert [him] to Islam. [...] I went to the land of Rūm when a red mountain appeared to us; it was purported to be the mountain of the Companions of the Cave. We arrived at a monastery and asked about them to the people there. They showed us a tunnel in the mountain and told us: ‘We want you to look at them.’ We gave them a tip and they entered

that tunnel followed by us. There was an iron door; they opened it and we entered a large room carved in the mountain where thirteen men were lying on their backs as if they were asleep. They were all wearing a dusty jubbah and a[n equally] dusty garment that covered it. [...] We could not understand whether the cloth was made of wool or camel's hair, except that it was made rigid by brocade." [...] They wore beautiful silk and leather shoes. [...] "We uncovered their faces one by one; [...] they were grey-haired, some had long flowing hair, others had their hair tied back. They were dressed as Muslims. One had a wound on his face as if he had been killed by the sword. We asked [our guides from the monastery]: 'What happened to them?' They answered: 'A certain day, once a year, people from the vicinity gather near the door and come [to them] to clear the dust away, pare [their] nails, cut [their] moustache, and then leave [them] in the condition you see [them].' We asked if they knew who and how many they were¹⁹⁷ and how long they had been there. They said that we could find in our books that they were prophets, [all] sent in a single period four hundred years before Christ." [...] From Abū al-ʿAbbās (God bless him)¹⁹⁸ [we know] that the Companions of the Cave are seven [...] and their dog is called Qīṭmīr.¹⁹⁹ [London fol. 58r: 4–17 and fol. 58v: 1–3; Munich fol. 85v: 14–28 and fol. 85v: 1–4; Cairo I: 240, 9–41 and 241, 1–40]

Cat. 120 (Fig. 4.1)

ʿAmr ibn al-ʿĀs and the River Nile²⁰⁰

Fol. 62v, left side of lines 8–23; 152×132 mm

Seven haloed and turbaned men talk outside the locked entrance of a pale-pink bricked building. The door looks as though it is made of rock: it has two gold knockers and a large lock. One of the men (ʿAmr ibn al-ʿĀs) sits; all the others stand. In the lower part of the painting, a woman fully dressed with a red tunic and a gold necklace floats in the Nile. In the water is a pillar made of pale-pink bricks (the Nilometer). The painting is slightly damaged. The woman's face is damaged. Some pigment is missing.

ʿAbd al-Raḥmān ibn ʿAbd al-Raḥmān ibn al-Ḥakam²⁰¹ reported: "When the Muslims conquered Egypt, its inhabitants went to ʿAmr ibn al-ʿĀs²⁰² and told him: 'Oh amir, the Nile does not flow this year in our country. On the twelfth night of the [Coptic] month of Baʿūna²⁰³ we took a girl [...] after having obtained her father's permission; we dressed her up with jewels and the best clothes one can find, then we threw her into the Nile in the hope to make it flow.' ʿAmr ibn al-ʿĀs told them that this [behaviour] was not suitable to Islam. Baʿūna, Abīb and Miṣra²⁰⁴ passed and [yet] the water [of the Nile] would not flow. People [began to] leave [the region] and when ʿAmr noticed it he wrote to ʿUmar ibn al-Khaṭṭāb (God bless him)²⁰⁵ about this matter. [The caliph] replied: 'Now then, I state that Islam has abolished [the beliefs which existed] before [its advent]. I send

you a card to be thrown into the Nile.' [On the card] were written these words: 'From 'Umar the Commander of the Believers to the Nile of Egypt. You used to flow before and now you do not. God the One and Almighty was the One who made you flow, therefore we ask Him to make you flow [again].' [. . .] 'Amr ibn al-ʿĀs threw the card into the Nile the day before Good Friday²⁰⁶ when people were about to leave. When they woke up on Good Friday, the Nile had risen sixteen cubits in a single day.'"

[London fol. 62v: 18–25 and fol. 63r: 1–5; Munich fol. 92v: 21–7 and fol. 93r: 1–4; Cairo I: 263, 40–1 and 264, 1–33]

Cat. 121 (Fig. 4.2)

Dancer and Musicians at the Spring of Īlābistān²⁰⁷

Fol. 63v, below line 18; 70×170 mm

Five musicians and a female dancer, all of them haloed, stand on a grassy foreground. The woman in the middle performs her dance: she wears a light veil above her face and a long red tunic with oversized sleeves and a 'Mandarin square' decoration on her chest. The two musicians on the left play tambourines; a lute- and a flute-player, and a man without an instrument, perhaps a singer, are on the right. The flute-player and the singer also have a 'Mandarin square' on their tunics. The painting is slightly damaged. Some pigment is missing. The dancer's face is damaged.

'The author of the *Tuhfat al-gharā'ib* said that in a small hamlet called Īlābistān,²⁰⁸ between Gurgan and Asfarāyin, a spring is found that carries plenty of water. Once, the water stopped flowing for one month. The people of the hamlet went [to the spring], men and women [together] dressed in their best clothes, and carried tambourines, reed flutes and [other] musical instruments. They danced and played near the spring in order to make the water flow. And [indeed] it flowed, plentiful water whose quantity [still] makes two mills work.'

[London fol. 63v: 16–18 and fol. 64r: 1; Munich fol. 94r: 7–11; Cairo I: 267, 10–25]

Cat. 122 (Fig. 5.16)

Hārūt and Mārūt²⁰⁹ in the Well of Babel²¹⁰

Fol. 66r, between lines 8 and 9; 102×169 mm

Two caves are shown inside a frame of greyish-blue rocky formations. In the middle, a pear-shaped cave is entirely occupied by two naked figures with green wings hanging upside down by means of gold chains. On the right is a smaller cave where two men stand pointing at the two naked figures. The painting is partially damaged. The rocky frame on the right side is patched and retouched in some parts; the rest is original. Some parts are damaged. Some pigment is missing.

'Al-Aʿmash reported: "Mujāhid²¹¹ wanted to see some wonders,

[. . .] so he went to Babel where he met al-Ḥajjāj²¹² and asked him: 'What are you doing here?' He²¹³ answered: 'I need to go to Ra's al-Jālūt and see Hārūt and Mārūt.' [al-Ḥajjāj] sent a man with him and said: 'Go with him, enter [the place] of Hārūt and Mārūt and you [will] see both of them.' He walked with [the man] until they came to a place atop a rock, similar to a vaulted cellar. The Jew²¹⁴ told him: 'Descend with me and look at them but do not mention the name of God.' Mujāhid said: 'The Jew went down and I with him, and we walked until I saw them both as huge as mountains, turned upside down. An iron [chain] ran from their neck to their feet.' When Mujāhid saw them he could not help mention the name of God, and [suddenly] they got into a state of great excitement that almost caused them to smash their iron [chains]. The Jew ran away and Mujāhid hung on to him until they were out. The Jew said: 'I told you not to do that, we could have perished [because of your behaviour]!''''

[London fol. 66r: 2–10; Munich fol. 96v: 9–16; Cairo I: 275, 2–34]

The Vegetable Kingdom²¹⁵

The Trees

Cat. 123 (Fig. 4.7)

Ebony (*ābanūs*)

Diospyros ebenum, *Diospyros melenoxylon*, Fam. Ebenaceae²¹⁶

Fol. 77v, right side of lines 7–12; 74×64 mm

Two short trunks looking like rocks are covered with small leaves all over their surface.²¹⁷ The wood is dark greyish-blue with a spray of pale-orange at the bottom.²¹⁸ The painting is in good condition. Some pigment is missing.

'This tree looks like a piece of rock at its top. It grows green and its wood is very hard. Its wood sinks in the water and is similar to a piece of rock. Ibn Sīnā says that if you place it in live coals it smells good.'

[London fol. 77v: 6–9; Munich fol. 114r: 4–8; Cairo II: 4, 8–15]²¹⁹

Cat. 124 (Fig. 4.7)

Myrtle (*ās*)

Myrtus communis, Fam. Myrtaceae²²⁰

Fol. 77v, left side of lines 13–19; 90×75 mm

A shrub with long branches that spring from the ground and curve in different directions. The painting is slightly damaged. Much pigment is missing.

'It is a well-known tree. The author of [*The Book of*] *Agriculture*²²¹ said that if one wants to plant a Myrtle [one] must place some sand around its bed and grow barley around it.'

[London fol. 77v: 13–14; Munich fol. 113v: 24–6; Cairo II: 4, 23–7]

Cat. 125**Citron** (*utruj*)*Citrus medica*, Fam. *Rutaceae*²²²

Fol. 78r, left side of lines 1–9; 85×90 mm

A shrub has long branches that bend under the weight of large yellow and orange fruit. Its leaves are similar to those of the vine. The painting is in good condition. Some pigment is missing.

'It grows only in hot countries. The author of *The Book of Agriculture* said that if one spreads ashes of a squash beneath the Citron it will bear much more fruit and no fruit will fall [from its branches]. Chewing its leaves makes the breath agreeable and gets rid of the smell of garlic and onion.'

[London fol. 77v: 22–4; Munich fol. 114r: 11–14; Cairo II: 5, 1–9]

Cat. 126**Plum** (*ijjās*)*Prunus domestica*, Fam. *Rosaceae*²²³

Fol. 78r, right side of lines 13–19; 75×65 mm

A tree has a short straight trunk and curving branches. The painting is in good condition. Pigment is missing.

'The author of *The Book of Agriculture* said that if one waters the Plum tree [and mixes the water] with Plum tree's dregs, its fruit will taste better. If one coats the Plum tree with cow gall, no worms will be born in its fruit.'

[London fol. 78r: 13–15; Munich fol. 114v: 7–10; Cairo II: 6, 2–8]



Col. 34 *Citron* (*utruj*), fol. 78r, 85×90 mm; *Plum* (*ijjās*), fol. 78r, 75×65 mm; *Melia Tree* (*azādarakht*), fol. 78r, 90×62 mm.

Cat. 127**Melia Tree** (*azādarakht*)*Melia azedarach*, Fam. *Meliaceae*²²⁴

Fol. 78r, left side of lines 20–5; 90×62 mm

A short tree has its trunk leaning to the right. It bears small yellow fruit outlined in red. The painting is in good condition. Some pigment is missing.

'It is a well-known big tree whose fruit is similar to that of the Syrian Christ-thorn (*nabiq*).²²⁵ Its leaves are poisonous to cattle [when eaten], and their juice kills lice and makes the hair grow.'

[London fol. 78r: 21–3; Munich fol. 114v: 16–19; Cairo II: 6, 19–23]

Cat. 128**Gum Arabic Tree** (*umm ghaylān*)*Acacia seyal*, *Acacia nilotica*, Fam. Leguminosae²²⁶

Fol. 78v, left side of lines 1–5; 85×68 mm

A tree with a slender straight trunk bears grey round fruit. The painting is in good condition. Some pigment is missing.

‘Its sizeable thorny shrubs are easy to spot and it has many thorns.

Ibn Sīnā said that its trunk is called *bunk*.¹²²⁷

[London fol. 78v: 1–2; Munich fol. 114v: 24–6; Cairo II: 6, 31–4]

Cat. 129**Moringa** (*bān*)*Moringa aptera*, *Moringa oleifera*, Fam. Moringaceae²²⁸

Fol. 78v, right side of lines 6–10; 77×75 mm

A thorny tree has its trunk leaning to the left.²²⁹ The painting is in good condition.‘This is a well-known tree. Its fruit is bigger than a chick-pea. It[s wood] tends to be white, has a good smell, and an oily grain.’²³⁰

[London fol. 78v: 5–6; Munich fol. 115r: 1–4; Cairo II: 6, 35–9]

Cat. 130**Turpentine Tree** (*butm*)*Pistacia terebintus*, Fam. Anacardiaceae²³¹

Fol. 78v, left side of lines 11–18; 85×85 mm

A tall tree has curving branches and bears green round fruit. The painting is in good condition. Some pigment is missing.

‘It is a well-known mountain tree whose fruit is green. Ibn Sīnā said that its fruit cleans mange.’

[London fol. 78v: 10–11; Munich fol. 115r: 7–8; Cairo II: 7, 7–9]

Cat. 131**Balsam Tree** (*balasān*)*Commiphora opobalsamum*, Fam. Burseraceae²³²

Fol. 79r, left side of lines 1–8; 94×82 mm

A large tree has a short trunk and small oak-like leaves. The painting is in good condition. Some pigment is missing.

‘This tree is found [only] in Egypt and in no other country, and in Egypt in no other place than that called ‘Ayn Shams.²³³ Its

Col. 35 Gum Arabic Tree (*umm ghaylān*), fol. 78v, 85×68 mm; Moringa (*bān*), fol. 78v, 77×75 mm; Turpentine Tree (*butm*), fol. 78v, 85×85 mm.

smell and foliage are similar to those of the rue, but it tends to be whiter.'

[London fol. 78v: 17–19; Munich fol. 115r: 13–16; Cairo II: 7, 15–21]

Cat. 132

Oak (*ballūt*)

Quercus, Fam. *Fagaceae*²³⁴

Fol. 79r, right side of lines 11–18; 71×78 mm



A tree has a large straight trunk, oak-like leaves and orange acorns. The painting is in good condition. Some pigment is missing.

'It is a well-known tree of the mountains. It is said that one year it gives acorns and the next [year] gall-apples. This may well be true because it can be compared to the hare and the hyaena among the animals, which are one year male and the other female. God knows more about the veracity [of this statement]! They say that its foliage prevents snakes from moving.'

[London fol. 79r: 10–14; Munich fol. 115v: 1–6; Cairo II: 8, 11–18]

Cat. 133

Apple (*tuffāh*)

Malus domestica, Fam. *Rosaceae*²³⁵

Fol. 79r, left side of lines 19–25; 93×68 mm

A low tree has a straight trunk and extensive foliage. Some of its branches bend under the weight of round red and grey fruit. The painting is in good condition.

Some pigment is missing.

'The author of *The Book of Agriculture* said that if one intends to plant an Apple tree and grows squill around it, worms will not dwell in its fruit.'

[London fol. 79r: 19–21; Munich fol. 115v: 9–11; Cairo II: 8, 25–8]

Cat. 134

Spruce (*tannūb*)

Picea abies, Fam. *Pinaceae*²³⁶

Fol. 79v, left side of lines 5–13; 94×89 mm

A tree has a large trunk and extensive foliage. On the right, some branches curve to the ground. The painting is in good condition. Some pigment is missing.

Col. 36 Balsam Tree (*balasān*), fol. 79r, 94×82 mm; Oak (*ballūt*), fol. 79r, 71×78 mm; Apple (*tuffāh*), fol. 79r, 93×68 mm.

'[This is] a huge tree, found on the top of the mountains of Rūm.'

[London fol. 79v: 5–6; Munich fol. 115v: 21–2; Cairo II: 9, 7–9]

Cat. 135

Mulberry (*tūth*)

Morus alba, *Morus nigra*, Fam. Moraceae²³⁷

Fol. 79v, right side of lines 16–23; 73×76 mm

A slender tree leans to the right. Its few branches are covered by minuscule foliage and tiny red fruit. The painting is in good condition. Some pigment is missing.

'It is among the barest of trees because silk-worms feed on it[s leaves and eat them all]. The author of *The Book of Agriculture* said that if one grows squill beneath the Mulberry its growth will be reinforced and [its height] increased. Ibn Sīnā said that if one cooks mulberry leaves in rain-water together with those of the vine and of the black fig, then [the juice can be used to] blacken the hair.'

[London fol. 79v: 15–18; Munich fol. 116r: 2–8; Cairo II: 9, 27–37]



Col. 37 Spruce (*tannūb*), fol. 79v, 94×89 mm; Mulberry (*tūth*), fol. 79v, 73×76 mm.

Cat. 136

Fig (*tīn*)

Ficus carica, Fam. Moraceae²³⁸

Fol. 80r, left side of lines 1–9; 100×90 mm

A tree has a small trunk and extensive foliage. It has large fig leaves and bears round grey and red fruit. The painting is in good condition. Some pigment is missing.

'It is a well-known tree. The author of *The Book of Agriculture* said that if one wants to plant it, [one must] dip it in salt water for one day, place it under cow's dung for another day, and then plant it; in this way its fruit will taste much better. And if one irrigates it with olive water its fruit will not fall and will sweeten; if one grows squill beneath it, its fruit will not fall. If one washes fig [leaves] in hot water, they very soon become rotten.'

[London fol. 79v: 24–5 and fol. 80r: 1–3; Munich fol. 116r: 12–14; Cairo II: 10, 6–15]



Col. 38 Fig (*tīn*), fol. 80r, 100×90 mm; Sycamore Fig (*jummayz*), fol. 80r, 75×65 mm.

Cat. 137**Sycamore Fig** (*jummayz*)*Ficus sycomorus*, Fam. *Moraceae*²³⁹

Fol. 80r, right side of lines 19–25; 75×65 mm

A small tree has a slender trunk leaning to the right. It has tiny foliage. The painting is slightly damaged. Some pigment is missing.

'It is a large tree similar to the Fig tree whereas its foliage is similar to that of the Mulberry. It bears fruit three or four times a year but they do not grow from the twigs of the branches, as is generally known in trees. Rather, they grow from its trunk. Its leaves [are able to] remove the traces of tattoos if one rubs their juice over them.'

[London fol. 80r: 20–3; Munich fol. 116v: 7–11; Cairo II: 11, 21–30]

Cat. 138**Walnut** (*jawz*)*Juglans regia*, Fam. *Juglandaceae*²⁴⁰

Fol. 80v, left side of lines 1–8; 94×75 mm

A tree has a straight trunk and large oval leaves (some of them painted outside the frame) and bears round green fruit. The painting is in good condition. Some pigment is missing.

'It is among the trees that grow only in cold climates. The author of *The Book of Agriculture* said that if one intends to plant a Walnut with one's hands, [one must] take a walnut and soak it in the urine of a boy for no longer than five days, then grow it and scatter some ash. If one takes a walnut, [peels] its shell and [is careful] not to scratch the kernel, then wraps it in a sheet of paper, a rag, or a vine- or plantain leaf and finally grows it, it will give fruit with a shell that resembles a sheet of paper.'

[London fol. 80v: 1–8; Munich fol. 116v: 15–21; Cairo II: 11, 34–9 and 12, 1–6]



Col. 39 Walnut (*jawz*), fol. 80v, 94×75 mm; *The Tree Called 'Khusraw Dār'*, fol. 80v, 70×75 mm; *Castor Oil Plant* (*khirwa'*), fol. 80v, 95×78 mm.

Cat. 139**The Tree Called 'Khusraw Dār'**²⁴¹

Fol. 80v, right side of lines 10–17; 70×75 mm

A straight slender tree has oak-like leaves. The painting is in good condition. Some pigment is missing.

'[This is] a huge tree whose wood is called "galangal" [?] (*khawlanjān*).'²⁴²

[London fol. 80v: 16; Munich fol. 117r: 3–4; Cairo II: 12, 24–6]

Cat. 140**Castor Oil Plant** (*khirwa*)*Ricinus communis*, Fam. Euphorbiaceae²⁴³

Fol. 80v, left side of lines 18–25; 95×78 mm

Two straight slender trees have large star-shaped leaves growing alternately on the sides of their trunks. The painting is in good condition. Some pigment is missing.

‘It is called *bīd-anjīr*²⁴⁴ in Persian. When its seeds dry inside their perianths, [if] one separates them and lets them fall from the branch, they [are so light] that they [fly away and] touch ground at the distance of a javelin’s throw.’

[London fol. 80v: 19–21; Munich fol. 117r: 5–8; Cairo II: 12, 29–33]

Cat. 141 (Fig. 2.18)**Willow** (*khilāf*)*Salix*, Fam. Salicaceae²⁴⁵

Fol. 81r, left side of lines 1–8; 95×73 mm

A shrub is formed by slender branches with oval leaves. The painting is in good condition. Some pigment is missing.

‘It is [also called] *ṣafṣāf*²⁴⁶ [and] is called *bīd*²⁴⁷ in Persian. Its wood, which has many benefits, is very dry. Its leaves are similar to a dagger.’

[London fol. 81r: 1–3; Munich fol. 117r: 11–13; Cairo II: 12, 39 and 13, 1–3]

Cat. 142 (Fig. 2.18)**Peach** (*khawkh*)*Prunus persica*, Fam. Rosaceae²⁴⁸

Fol. 81r, right side of lines 10–17; 70×75 mm

A tree with a small trunk and extensive foliage bears large heart-shaped white and red fruit. The painting is in good condition. Some pigment is missing.

‘It is a well-known tree. The author of *The Book of Agriculture* said that if one wants peaches to turn very red, [one must] take a broken kernel with its pulp on and place it in a hole coated with a little cinnabar; in this way very red fruit will grow. He [also] said that if one carves a figure or writes some words inside the kernel, then each fruit will show the same figure or words.’

[London fol. 81r: 8–13; Munich fol. 117r: 18–24; Cairo II: 13, 12–22]

Cat. 143 (Fig. 2.18)**Spiny Cytisus** (*dār shayshi‘ān*)*Calycotome spinosa*, Fam. Leguminosae²⁴⁹

Fol. 81r, left side of lines 18–25; 96×77 mm

A tree has a low trunk and few branches covered with small leaves. The painting is in good condition. Some pigment is missing.

‘It is a big tree with many thorns. It is said that if one throws

it into waters where crocodiles live, all the crocodiles will gather [around it].'

[London fol. 81r: 18–20; Munich fol. 117v: 3–6; Cairo II: 13, 32–6]

Cat. 144

Elm (*dardār*)

Ulmus minor, Fam. *Ulmaceae*²⁵⁰

Fol. 81v, left side of lines 1–7; 85×67 mm

A low tree has a slender trunk leaning to the left. It has thick foliage and bears large orange pomegranate-like fruit. The painting is in good condition. Some pigment is missing.

'It is the Elm, or "Tree of the Bedbug", a big tall tree. Its fruit is a pericarp that protrudes like the pomegranate. It pops and bedbugs come out from each of them, as God wills. If one of its pericarps is broken and hollowed out, it is fleshy and on its pulp there is something resembling seeds of basil.'²⁵¹

[London fol. 81v: 1–5; Munich fol. 117v: 9–12; Cairo II: 14, 1–8]

Cat. 145

Plane (*dulb*)

Platanus orientalis, Fam. *Platanaceae*²⁵²

Fol. 81v, right side of lines 9–18; 79×92 mm

A slender tree has a trunk leaning to the right. Large oval leaves are on its branches. The painting is in good condition.

'It is called *chanār*²⁵³ in Persian. It is among the biggest and most enduring of trees. When its life comes to an end, it becomes hollow inside. Bats²⁵⁴ are driven away by its leaves. Some birds build their nest [on the plane tree] in order to drive bats away, since they would die [if they get close to its leaves].'²⁵⁵

[London fol. 81v: 12–15; Munich fol. 117v: 20–5; Cairo II: 14, 22–9]



Col. 40 *Elm* (*dardār*), fol. 81v, 85×67 mm; *Plane* (*dulb*), fol. 81v, 79×92 mm; *Laurel* (*dahmast*), fol. 81v, 86×68 mm.

Cat. 146

Laurel (*dahmast*)

Laurus nobilis, Fam. *Lauraceae*²⁵⁶

Fol. 81v, left side of lines 19–25; 86×68 mm

A shrub is formed by four slender branches. It has sparse oval leaves and bears red round fruit on their tips. The painting is in good condition. Some pigment is missing.

'It is [called also] *ghār*.²⁵⁷ It is bigger

than the Myrtle, but its foliage is similar. Its fruits are red. It grows on mountainous slopes. Its fruit is like a small hazelnut with a black skin.'

[London fol. 81v: 19–21; Munich fol. 118r: 1–3; Cairo II: 14, 37–9 and 15, 1–3]

Cat. 147

Pomegranate (*rummān*)

Punica granatum, Fam. *Punicaceae*²⁵⁸

Fol. 82r, left side of lines 3–11; 88×85 mm

A slender tree has a short trunk. It has oval leaves and bears large red pomegranates, mainly grouped three-by-three at the end of the branches. The painting is in good condition. Some pigment is missing.

'It grows only in hot climates. The author of *The Book of Agriculture* said that if one plants a Myrtle near the Pomegranate, the latter will give more fruit. If one puts some honey in its bed at the time of planting, then its fruit will be sweeter, whereas if one puts vinegar, it will become sour.'

[London fol. 82r: 4–8; Munich fol. 118r: 10–14; Cairo II: 15, 18–22]



Col. 41 Pomegranate (*rummān*), fol. 82r, 88×85 mm.

Cat. 148 (Fig. 5.17)

Olive (*zaytūn*)

Olea europaea, Fam. *Oleaceae*²⁵⁹

Fol. 82v, left side of lines 5–13; 95×85 mm

A tree has a short trunk and extensive thick foliage. The painting is in good condition. Some pigment is missing.

'A blessed tree that is very useful. Ibn 'Abbās (God bless him)²⁶⁰ [says] that God vouched for this tree and its fruit in the Qur'an for its general usefulness. Ḥudayfa ibn al-Yamān (God bless him)²⁶¹ [reports] from the [words of the] Prophet (God bless him) that Adam [once] realised that his body was aching, so he went to God to complain about it. [The angel] Gabriel brought an olive tree and ordered him to plant it and take its fruits and squeeze them, saying that in its oil he could find the healing for all diseases but not for poisons. Among its oddities, it survives in water for a long time and its wood and oil do not produce smoke [when burnt].'

[London fol. 82v: 5–14; Munich fol. 118v: 9–15; Cairo II: 17, 22–38]

Cat. 149 (Fig. 2.29)

Cypress (mistakenly named *shajar jawz al-hind* in place of *ṣarw*)²⁶²

Cupressus sempervirens, Fam. *Cupressaceae*²⁶³

Fol. 83r, left side of lines 2–12; 100×106 mm

Two coconut trees have long straight trunks. They have palm leaves and bear large green nuts which curve towards the ground. The usual grassy foreground is replaced by a more complex landscape. The painting is in good condition.

‘It is beautifully straight, straighter than any other tree. It is green in both summer and winter, and it is affected neither by heat nor by severe cold.’

[London fol. 83r: 2–5; Munich fol. 119r: 9–10; Cairo II: 19, 8–12]

Cat. 150 (Fig. 2.29)

Quince (*safarjal*)

Cydonia oblonga, Fam. *Rosaceae*²⁶⁴

Fol. 83r, right side of lines 15–22; 70×75 mm

A slender tree with a short trunk has round leaves and bears large yellow fruit. The landscape is the same as the previous illustration (cat. 149). The painting is in good condition. Some pigment is missing from the fruit, revealing white priming pigment underneath.

‘It is a well-known tree. [...] Its flower has a strange effect in strengthening the brain and the heart, and its fruit has many uses.’

[London fol. 83r: 14–15; Munich fol. 119r: 20 (text partially missing); Cairo II: 19, 26–31]

Cat. 151 (Fig. 2.30)

Sumac (*summāq*)

Rhus coriaria, Fam. *Anacardiaceae*²⁶⁵

Fol. 83v, left side of lines 3–9; 90×65 mm

A tree with minuscule foliage bears round pale-brown fruit bordered in red. The painting is in good condition. Some pigment is missing.

‘It is a well-known tree which grows in the mountains.’

[London fol. 83v: 3; Munich fol. 119v: 6; Cairo II: 20, 27]

Cat. 152 (Fig. 2.30)

Sandarach (*sandarūs*)

Callitris quadrivalvis, Fam. *Cupressaceae*²⁶⁶

Fol. 83v, right side of lines 11–19; 80×80 mm

A tree has few branches and tiny leaves. The painting is in good condition.

‘It is a well-known tree from Rūm. From its wood is extracted an oil called *ṣawānī*,²⁶⁷ which is used to smear wooden boards.’

[London fol. 83v: 8–9; Munich fol. 119v: 17–20; Cairo II: 20, 35–8]

Cat. 153 (Fig. 2.30)

The Tree Called ‘Shabāb’²⁶⁸

Fol. 83v, left side of lines 20–5; 83×77 mm

A tree has its trunk leaning to the right. It has oval leaves and bears round dark red fruit. The painting is in good condition.

'Its leaves are in the shape of a small fish. Its fruits are as long as a finger, in groups of three, and similar to large hazelnuts; in each fruit there are three black seeds.'

[London fol. 83v: 16–19; Munich fol. 120r: 1–3; Cairo II: 21, 14–18]

Cat. 154 (Fig. 4.11)

Chestnut (*shāhballūt*)

Castanea sativa, Fam. *Fagaceae*²⁶⁹

Fol. 84r, left side of lines 1–7; 83×77 mm

A tree with a short trunk bears red fruit amongst its dark green foliage. The painting is in good condition. Some pigment is missing.

'This tree is found in Syria and also in Iran. Its fruit is sweet[er] than that of the oak, and is not as bitter as the gall oak; it looks like a half-walnut and it tastes like a hazelnut.'

[London fol. 84r: 1–4; Munich fol. 120r: 8–11; Cairo II: 21, 26–30]

Cat. 155 (Fig. 4.11)

Sandalwood (*ṣandal*)

Santalum album, Fam. *Santalaceae*²⁷⁰

Fol. 84r, right side of lines 8–12; 64×68 mm

Two small trees have irregular trunks and sparse oval leaves. The painting is in good condition. Some pigment is missing.

'It is a well-known Indian tree. There are two species, white and red. As for the red [variety], its wood is hard and is used to heal St Anthony's fire; it is also useful against headache. As for the white [Sandal], its wood is soft and smells pleasant.'

[London fol. 84r: 8–10; Munich fol. 120r: 14–16; Cairo II: 21, 33–9]

Cat. 156 (Fig. 4.11)

Pine (*ṣanawbar*)

Pinus, Fam. *Pinaceae*²⁷¹

Fol. 84r, left side of lines 13–20; 95×87 mm

A tree with its trunk leaning to the right has a few winding branches with minuscule leaves. The painting is in good condition.

'It is a well-known tree that grows especially in the lands of Rūm. Its wood contains much resin which burns like a candle when fresh. A substance called *qiṭrān*²⁷² is taken from it: it[s bark] is peeled off and it is exposed to the fire, so that the resin flows, and that [resin] is the *qiṭrān*.'

[London fol. 84r: 13–16; Munich fol. 120r: 20–3; Cairo II: 22, 3–9]

Cat. 157 (Fig. 5.18)

Lentiscus (*ḍirw*)

Pistacia lentiscus, Fam. *Anacardiaceae*²⁷³

Fol. 84v, left side of lines 2–9; 83×73 mm

A slender tree with a large amount of foliage has large, oval, dark

purple leaves and bears pale-orange clusters. The painting is in good condition. Some pigment is missing.

'It is a large tree that grows on the mountains of Yemen. It bears clusters [like] the Turpentine tree²⁷⁴ and its leaves are reddish.'

[London fol. 84v: 3–4; Munich fol. 120v: 5–7; Cairo II: 22, 34–7]

Cat. 158 (Fig. 5.18)

Tamarisk (*ṭarfāʿ*)

Tamarix, Fam. *Tamaricaceae*²⁷⁵

Fol. 84v, right side of lines 11–17; 80×65 mm

Two slender trees have low trunks, winding branches and minuscule needle-like leaves. The painting is in good condition.

'It is a well-known tree called *gāz*²⁷⁶ in Persian.'

[London fol. 84v: 9–10; Munich fol. 120v: 13; Cairo II: 23, 6]

Cat. 159 (Fig. 5.18)

Juniper (*ʿarʿar*)

Juniperus, Fam. *Cupressaceae*²⁷⁷

Fol. 84v, left side of lines 18–25; 84×77 mm

A tree has a few winding branches, needle-like leaves and small red fruit. The painting is in good condition. Some pigment is missing.

'It is a big tree with foliage similar to that of the Cypress. [For this reason] it is called the Mountain Cypress. Ibn Sīnā said that the smoke of each one of its parts drives vermin away. Its fruit is similar to that of the Medlar except that it is blacker; it has a pleasant smell and is good [to eat].'

[London fol. 84v: 18–21; Munich fol. 120v: 20–4; Cairo II: 23, 20–7]

Cat. 160 (Fig. 2.31)

Mudar Plant (*ʿushar*)

Calotropis, Fam. *Asclepidaceae*²⁷⁸

Fol. 85r, left side of lines 1–8; 85×80 mm

A large tree with a slender trunk has a few branches with large, long, pointed leaves. The leaves are greyish-blue fading into light red and are edged in black. Some branches are tied by four knotted strings. The painting is in good condition.

'It is a strange tree. Among the Arabs during the *jāhiliyya*,²⁷⁹ if a man intended to travel away from his wife, he went to this tree and tied two branches together. When he returned from his journey he went back to the tree: if the branches were still tied it meant that his wife had not betrayed him during his absence; on the contrary, if they were unfastened, it meant that she had been unfaithful.'²⁸⁰

[London fol. 85r: 1–7; Munich fol. 121r: 1–8; Cairo II: 23, 35–7 and 24, 1–8]

Cat. 161 (Fig. 2.31)**Gall Oak** (ʿafṣ)*Quercus infectoria*, Fam. Fagaceae²⁸¹

Fol. 85r, right side of lines 10–17; 80×80 mm

A slender tree has its trunk leaning to the right. It has a few branches with oak-like leaves and bears yellow acorns. The leaves are alternately light and dark green with a red top and are edged in black. The illustration is framed in gold. The painting is in good condition.

‘This is a mountain tree. It is reported that the Oak (*ballūt*)²⁸² bears alternately oak- and gall-oak acorns every year. Al-Jāhīz reports that al-Faḍl Ibn Ishāq²⁸³ saw acorns of gall oak and oak on the same branch, and this is correct because it can happen to trees just as it happens to hares among animals: they are one year female and one year male, as they are hermaphrodite.’²⁸⁴

[London fol. 85r: 9–13; Munich fol. 121r: 9–13; Cairo II: 24, 12–23]

Cat. 162 (Fig. 2.31)**Jujube** (ʿunnāb)*Ziziphus jujuba*, Fam. Rhamnaceae²⁸⁵

Fol. 85r, left side of lines 18–25; 86×75 mm

A tree with a short trunk and tiny leaves bears small yellow fruit amongst its foliage. The painting is in good condition. Some pigment is missing.

‘It is a well-known tree. Its leaves are useful [against] eye diseases.’
[London fol. 85r: 17–18; Munich fol. 121r: 19–20; Cairo II: 24, 30–2]

Cat. 163**Service Tree** (*ghubayrā*)*Sorbus domestica*, Fam. Rosaceae²⁸⁶

Fol. 85v, left side of lines 1–7; 84×68 mm

A slender tree has its trunk leaning to the left. It has a few branches with oval leaves and bears small red fruit. The painting is in good condition. Some pigment is missing.

‘It is a well-known tree. Its wood is most resistant in water where it can survive for a long time. The doors of baths are made out of it[s wood]. When a woman wears some perfume made from its flowers, she excites sexual desire even if she looks shy and chaste.’

[London fol. 85v: 1–4; Munich fol. 121v: 8–12; Cairo II: 25, 1–8]

Cat. 164**Poplar** (*gharab*)*Populus*, Fam. Salicaceae²⁸⁷

Fol. 85v, right side of lines 8–14; 83×67 mm

A slender tree has its trunk leaning to the right. It has a few winding branches with small round leaves. The painting is in good condition. Some pigment is missing.

‘This is a big tree, called *ispedār*²⁸⁸ in Persian.’



Col. 42 *Service Tree* (ghubayrā), fol. 85v, 84×68 mm; *Poplar* (gharab), fol. 85v, 83×67 mm; *Pistachio* (fustuq), fol. 85v, 82×86 mm.

[London fol. 85v: 7–8; Munich fol. 121v: 16; Cairo II: 25, 12 (partially missing)]²⁸⁹

Cat. 165

Pistachio (*fustuq*)

Pistacia vera, Fam. *Anacardiaceae*²⁹⁰

Fol. 85v, left side of lines 15–23; 82×86 mm

Two trees with irregular trunks have small leaves on their branches. The illustration is framed in gold. The painting is slightly damaged. Some pigment is missing.

‘It is a well-known tree. It is reported that if fruits of the Pistachio are placed on its wood when they are still green, and [its wood] is burnt in the fire, it will release a large quantity of oil, differing in this from the majority of other woods.’

[London fol. 85v: 23–5; Munich fol. 122r: 1–4; Cairo II: 25, 37 and 26, 1–3]

Cat. 166 (Fig. 2.32)

Pepper Tree (*filfil*)

Piper nigrum, Fam. *Piperaceae*²⁹¹

Fol. 86r, left side of lines 3–11; 100×85 mm

A large tree has a winding trunk that leans to the right. It has many branches with pointed oval leaves edged in black, and bears small clusters of the same green colour. The painting is slightly damaged.

‘It is a tree that grows in India in the region called Malabar. It is tall and always lives close to the water. When the wind blows [its grains] are thrown on to the surface of the water where they gather and shrink. It is said that [the Pepper] is a free-born tree which nobody can own, and it bears fruit both in summer and in winter. It has clusters: when the sun shines its leaves cover all the clusters until the air is cooler, and if the sun continues to strike, the leaves do not stop [protecting] the clusters producing some breeze.’

[London fol. 86r: 3–11; Munich fol. 122r: 9–15; Cairo II: 26, 10–24]

Cat. 167 (Fig. 2.32)

Hazelnut (*funduq*)

Corylus avellana, Fam. *Betulaceae*²⁹²

Fol. 86r, right side of lines 18–24; 72×65 mm

A small tree has its trunk leaning to the right. It has round leaves and bears round dark red fruit. It is set within a complex landscape. The painting is in good condition. Some pigment is missing.

'It is a well-known tree. It is said that if one draws a circle with Hazelnut wood around a scorpion, it will be unable to leave it.'
[London fol. 86r: 17–19; Munich fol. 122r: 23–5; Cairo II: 27, 5–9]

Cat. 168 (Fig. 2.12)

Lycium (*filzahraj*)

Lycium, Fam. *Solanaceae*²⁹³

Fol. 86v, left side of lines 1–8; 91×82 mm

A large tree has its trunk winding and leaning to the right. It has thick foliage with oak-like leaves. It is set within a complex landscape. The painting is in good condition.

'It is [called] "the Tree of Ḥuḍaḍ".²⁹⁴ Its fruits are similar to those of the Pepper tree. A juice [called *ḥuḍaḍ*] is taken from it.'

[London fol. 86v: 1–2; Munich fol. 122v: 5–6; Cairo II: 27, 30–1]

Cat. 169 (Fig. 2.12)

Clove (*qaranful*)

Caryophyllus, Fam. *Caryophyllaceae*²⁹⁵

Fol. 86v, right side of lines 10–16; 77×75 mm

A shrub with slender straight branches has thick foliage and bears small dark red fruit. The painting is in good condition.

'This tree grows on an island of the Indian Ocean.²⁹⁶ Its fruit is like that of the jasmine, only blacker. It is said that the inhabitants of that island export it cooked, in order to prevent it from being grown in other places.'

[London fol. 86v: 9–12; Munich fol. 122v: 12–14; Cairo II: 28, 4–10]

Cat. 170 (Fig. 2.12)

Reed (*qaṣab*)

Phragmites communis, Fam. *Arundinae*²⁹⁷

Fol. 86v, left side of lines 17–23; 92×74 mm

Four long straight reeds with long leaves bend to the ground. Four yellow spikes atop the plants also bend to the ground. The painting is in good condition. Some pigment is missing.

'It is a well-known tree. Its species are numerous and are very useful. The Sugar Cane is among the best [reeds] one can find in Egypt. [...] Among the oddities of the Nabatean Reed, it is mentioned that if one beats a snake [with it] once, it will not be able to move or to attack but it will remain there; if one hits it two or more times, then it will leave and the person will be safe.'

[London fol. 86v, 17–19 and 21–4; Munich fol. 122v: 19–20 and fol. 123r: 4–5; Cairo II: 28, 17–20 and 24–31]

Cat. 171 (Fig. 5.19)

Camphor Tree (*kāfūr*)

Cinnamomum camphora, Fam. *Lauraceae*²⁹⁸

Fol. 87r, left side of lines 10–17; 88×76 mm

A tree has a light grey trunk leaning to the right. Its oval pointed leaves are arranged on the branches forming star patterns. The painting is in good condition.

'It is a large tree from India. Vultures [?]²⁹⁹ are fond of it. It casts a huge shadow over everyone. People go where it is found only at a certain specific time of the year. Its wood is white, fragile and very light. Its gum is [also called] *kāfūr* and flows from the lower part of the tree. Muḥammad ibn Zakariyā [al-Rāzī] said that the *kāfūr* is the gum of this tree which is found inside it[s trunk]. It runs to the upper part of the tree and then, when it is hot, the *kāfūr* flows from there.' [London fol. 87r: 11–18; Munich fol. 123r: 8–16; Cairo II: 29, 20–33]

Cat. 172 (Fig. 5.19)

Grape Vine (*karm*)

Vitis vinifera, Fam. Vitaceae³⁰⁰

Fol. 87r, right side of lines 19–25; 79×65 mm

Three short winding trunks have thick foliage formed by large vine leaves and grey clusters. This is the only illustration of this group with a coloured background: it is blue in the upper part, yellowish green in the lower. The painting is in good condition. Some pigment is missing, especially on the right side.

'It is among the most useful and most common of trees. [. . .] If one wants it to bear more fruit and fortify its roots, [one must] take a twig from a tree of the same age and plant it during the first half of the month, then splash the top of the twig with cow's dung. [. . .] It is also said that if one takes a twig from the black-grape vine, one from the white-grape, and one from the light-skinned-grape, and then supports them in such a way that they cannot fall, sticks them together and plants them, eventually fruit of those three colours will grow on the same tree.'

[London fol. 87r: 19–20 and 22–5 and fol. 87v: 2–5; Munich fol. 123r: 17–18, 20–3 and 26–7 and fol. 123v: 1; Cairo II: 29, 37–8, and 30, 3–10 and 17–25]

Cat. 173 (Fig. 3.39)

Pear (*kummathrā*)

Pyrus communis, Fam. Rosaceae³⁰¹

Fol. 88r, left side of lines 6–13; 93×76 mm

A slender tree has a short trunk leaning to the right. It has a few winding branches with round leaves and bears yellow pears edged in green. The painting is damaged. Pigment is missing. A stroke in black ink crosses the painting. The illustration is framed in gold.

'It is a well-known tree. The author of *The Book of Agriculture* said that if one wants the Pear to last long, [one must] fill a container with salt, then spread the salt all over the trees: in this way, they will be long-lasting and their fruit will not rot.'

[London fol. 88r: 7–11; Munich fol. 124r: 4–8; Cairo II: 33, 1–7]³⁰²

Cat. 174 (Fig. 3.39)**Frankincense Tree** (*lubān*)*Boswellia*, Fam. *Burseraceae*³⁰³

Fol. 88r, right side of lines 17–23; 74×70 mm

A short slender tree has its trunk leaning to the right. It has winding branches with oval leaves. The painting is in good condition. Some pigment is missing.

‘This tree has thorns that do not exceed two cubits. It grows on the mountains of Oman. Its foliage is similar to that of the Myrtle. Its gum is [called] *kundur* and it is obtained by making use of axes [to scar its bark], so that the *kundur* can flow. [This gum] is also called *lubān*.’³⁰⁴

[London fol. 88r: 18–21; Munich fol. 124r: 20–3; Cairo II: 33, 29–37]

Cat. 175 (Fig. 4.12)**Almond** (*lawz*)³⁰⁵*Prunus amygdalus*, Fam. *Rosaceae*³⁰⁶

Fol. 88v, left side of lines 1–9; 88×83 mm

A tree has a short trunk, slender branches and oval leaves. The grassy foreground is enriched by two tall plants with red flowers. The painting is in good condition. Some pigment is missing.

‘It is a well-known tree. The author of *The Book of Agriculture* said that if one wants to grow an Almond, [one must] leave it[s seed] in honey, then plant it: in this way [its fruit] will be very sweet. [. . .] If one wants to avoid [its fruit] to fall, [one must] suspend the head of a donkey amongst its branches.’

[London fol. 88v: 1–3 and 5–6; Munich fol. 124v: 1–3; Cairo II: 34, 5–8 and 11–14]

Cat. 176 (Fig. 3.14)**Lemon** (*laymūn*)³⁰⁷*Citrus*, Fam. *Rutaceae*³⁰⁸

Fol. 88v, right side of lines 14–22; 87×86 mm

A slender tree with its trunk leaning to the right has a few branches with large oval leaves, alternately light and dark green, and it bears yellow fruit. The illustration is framed in gold. The tree is set within a landscape enriched by two large plants with pale-blue flowers. The painting is in good condition. Some pigment is missing.

‘This tree [grows] in warm countries. Its properties resemble those of the Citron, but [its fruit] is bitter so it is not edible. A wonderful property of its juice is that it is able to repel the poison of snakes and vipers.’

[London fol. 88v: 13–14; Munich fol. 124v: 13–15; Cairo II: 34, 32–7]

Cat. 177³⁰⁹ (Fig. 3.13)**A Story: The Lemon as an Antidote**

Fol. 89r, left side of lines 7–16; 95×130 mm

A man bends to the ground and grasps a large and swollen white snake. The scene is observed by another man standing on the terrace of a square yellow brick building on the right and pointing his right arm towards the first man. A tall shrub with slender branches completes the illustration on the left. The painting is in good condition. Some pigment is missing.

A landowner had an estate near Basra where a large dangerous viper used to live. The man asked a snake-charmer to help him to get rid of it, but he failed and was killed by the viper. After a while, a second charmer volunteered to kill the viper in order to avenge his colleague who was his brother, but he also failed and died. A third man came to the estate: he was the brother of the two previous charmers and intended to try to get rid of the animal. 'So I showed him the garden and climbed to my roof-terrace. He took some oil, anointed his body until the oil dripped down and then fumigated [the place where the viper was hiding]. The viper sprang out and he chased it and started to fight it. The charmer grabbed its nape with his hand [but] it curved back and bit his thumb.' The charmer was quick to tie the viper's mouth and put the snake into a basket, then cut his thumb off with a knife. While he was being brought inside the house he noticed that a boy was playing with a lemon. He was surprised to see that lemons were found in Basra since he believed that they were only available in his country, Oman. Lemons were used in Oman as an antidote to snake bites, so he ate the lemon, quickly drinking its juice, anointed his wound with it, and managed to survive.

[London fol. 88v: 16–25 and fol. 89r: 1–20; Munich fol. 124v: 16–27 and fol. 125r: 1–10; Cairo II: 35 and 36, 1–26]

Cat. 178

Apricot (*mishmish*)³¹⁰

Prunus armeniaca, Fam. *Rosaceae*³¹¹

Fol. 89r, right side of lines 20–5; 58×78 mm

A small slender tree has its trunk leaning to the right. It has a few branches with oval leaves and large purple flowers. The painting is in good condition. Some pigment is missing.



Col. 43 Apricot (*mishmish*), fol. 89r, 58×78 mm.

'It is a strange tree. Both its kernel and pulp are edible, differing in this from other fruit in which just one of the two is edible.'

[London fol. 89r: 20–2; Munich fol. 125r: 10–11; Cairo II: 36, 27–31]

Cat. 179 (Fig. 2.1)

Banana Tree (*mawz*)

Musa paradisiaca, Fam. *Musaceae*³¹²

Fol. 89v, left side of lines 6–14; 89×102 mm

A tree has a low trunk and large thick foliage made of long pointed leaves. The painting is in good condition.

'This tree grows on shores and most of them are found on islands. Its leaves are long and wide, two to three cubits long. They are not elongated like the palm leaves and have a loosely square shape. Its trunk is straight and its shoots always grow around it.'

[London fol. 89v: 7–11; Munich fol. 125r: 24–7; Cairo II: 37, 26–34]

Cat. 180 (Fig. 2.1)

Orange (*nāranj*)

Citrus aurantium, Fam. *Rutaceae*³¹³

Fol. 89v, right side of lines 16–20; 52×66 mm

A small tree has its trunk leaning sharply to the right. It has thick foliage with light- and dark green leaves and bears large orange fruit. The painting is in good condition.

'It is a well-known tree. The author of *The Book of Agriculture* said that if one grows the narcissus beneath it, its sour [fruit] becomes sweet.'

[London fol. 89v: 16–17; Munich fol. 125v: 5–7; Cairo II: 38, 5–8]

Cat. 181 (Fig. 2.1)

Coconut Palm (*nārjīl*)

Cocos nucifera, Fam. *Arecaceae*³¹⁴

Fol. 89v, left side of lines 21–4; 58×92 mm

A tree has a straight thick trunk with a tuft of long palm leaves on top that curves to the ground. Two large pale-orange coconuts are under the foliage. The painting is in good condition.

'It is [also called] *al-jawz al-hindī*.³¹⁵ People from Hijaz state that it is [called] *muql*.³¹⁶ It produces coconuts in a sandy and windy environment. Its fruit provide a fibre out of which are produced ropes that are used for boats. The[se ropes] do not rot and survive in sea-water for a long time. Its milk[y juice] is very delicious when fresh.'

[London fol. 89v: 21–4; Munich fol. 125v: 11–13; Cairo II: 38, 18–27]

Cat. 182 (Fig. 4.13)

Syrian Christ-thorn (*nabīq*)

Ziziphus spina-Christi, Fam. *Rhamnaceae*³¹⁷

Fol. 90r, left side of lines 2–10; 85×101 mm

A tree has its slender trunk winding and leaning to the right. Its foliage has tiny leaves and bears round pale-orange fruit. The painting is in good condition. Some pigment is missing.

'This is a well-known tree. The author of *The Book of Agriculture* said that if one soaks the kernel of a Syrian Christ-thorn in rose water, then grows it, both its fruit and foliage will smell of roses.'

[London fol. 90r: 2–5; Munich fol. 125v: 20–2; Cairo II: 38, 34–8 and 39, 1]

Cat. 183 (Fig. 4.13)

Date Palm (*nakhl*)

Phoenix dactylifera, Fam. *Arecaceae*³¹⁸

Fol. 90r, right side of lines 12–21; 65×95 mm

A tree has a straight trunk, its bark formed by large scales. Beneath its palm leaves there are three large date clusters painted in pale-orange. The painting is in good condition.

'It is a blessed tree. One of its wonders is that it is found only in the Islamic countries. [The Prophet] (God bless him and grant him salvation) said: "Honour your uncle the Date Palm." He called it "our uncle" because it was shaped from the clay of Adam (salvation be upon him): it is [indeed] similar to a man in its straight vertical figure, its differentiation between male and female [organs], and the capacity to fecundate.'

[London fol. 90r: 11–15; Munich fol. 126r: 2–9; Cairo II: 39, 12–22]

Cat. 184 (Fig. 4.14)

Rose (*ward*)

Rosa, Fam. *Rosaceae*³¹⁹

Fol. 90v, left side of lines 11–18; 74×87 mm

A bush has slender branches, oval leaves and large pale-grey roses. The painting is in good condition. Some pigment is missing especially on the left side, revealing white pigment underneath.

'It is a well-known tree. The author of *The Book of Agriculture* said that if one wants to make its leaves grow quickly from their perianth, [one must] dip [the plant] in hot water. If one places garlic among its twigs at the time of planting, then it will smell much stronger. [Rose] wood drives snakes away, and if a snake is beaten near a Rose its poison will become ineffective. Its flowers are most beautiful for their [variety of] colour, shape and smell.'

[London fol. 90v: 11–17; Munich fol. 126v: 9–15; Cairo II: 41, 12–23]

Cat. 185 (Fig. 4.14)

Jasmine (*yasmīn*)

Jasminum, Fam. *Oleaceae*³²⁰

Fol. 90v, right side of lines 20–5; 58×80 mm

This tree looks almost identical to the Rose (cat. 184) except for the yellow colour of its flowers. The painting is in good condition.

Some pigment is missing especially on the left side, revealing white pigment underneath.

'It is a well-known tree. Its flowers are yellow, white and purple.'
[London fol. 90v: 24-5; Munich fol. 126v: 24; Cairo II: 42, 2-4]

The Plants

Cat. 186

Pimpernel (*ādhān al-fār*)

Anagallis spp., Fam. *Primulaceae*³²¹

Fol. 91r, left side of lines 20-3; 35×92 mm

A low plant formed by minuscule twigs and oval leaves rises from a grassy foreground.³²² The painting is in good condition. Some pigment is missing.

'It is a small plant. Its leaves grow on minuscule twigs, and it spreads very close to the ground. Its flowers can be yellow, cerulean or dark blue.'

[London fol. 91r: 24; Munich fol. 127r: 20-3; Cairo II: 44, 1-5]

Cat. 187 (Fig. 2.13)

Calendula (*adhariyūn*)

Calendula officinalis, Fam. *Compositae*³²³

Fol. 91v, left side of lines 2-4; 30×90 mm

Eight plants have red flowers with a black button in the middle. The painting is in good condition.

'It is also called *khujasta*.³²⁴ It is said that the petals of its flowers are red and their centre is black, and that they look like a half acorn when they are cut longitudinally. [...] Foxes eat this plant.'

[London fol. 91v: 2-4; Munich fol. 127v: 1-4; Cairo II: 44, 10-14]

Cat. 188 (Fig. 2.13)

Lemongrass (*idhkhīr*)

Cymbopogon schoenanthus, Fam. *Gramineae*³²⁵

Fol. 91v, left side of lines 7-12; 57×90 mm

A plant has large oval leaves. The painting is in good condition.

'It smells good and is well-known.'

[London fol. 91v: 8; Munich fol. 127v: 9; Cairo II: 44, 23-4]

Cat. 189 (Fig. 2.13)

Rice (*aruzz*)

Oryza sativa, Fam. *Gramineae*³²⁶

Fol. 91v, left side of lines 14-17; 48×90 mm



Col. 44 *Pimpernel* (*ādhān al-fār*), fol. 91r, 35×92 mm.

Two horizontal rows of grass, one above the other, are interspersed with small yellow spikes of rice. The spikes in the upper row curve to the right, those in the lower row to the left. The painting is in good condition.

'It is said that if someone eats rice often, he will be healthier, will have a fit ruddy complexion, and his dreams will be nice.'

[London fol. 91v: 12-13; Munich fol. 127v: 13-15; Cairo II: 44, 29-32]

Cat. 190 (Fig. 2.13)

Spinach (*isfānāj*)

Spinacia oleracea, Fam. *Chenopodiaceae*³²⁷

Fol. 91v, left side of lines 19-21; 39×90 mm

The leaves resemble those of the oak tree. The painting is in good condition.

'It is a well-known plant.'

[London fol. 91v: 18; Munich fol. 127v: 18; Cairo II: 44 text missing]

Cat. 191 (Fig. 2.13)

Squill (*isqīl*)

Allium ascalonicum, Fam. *Alliaceae*³²⁸

Fol. 91v, left side of lines 23-5; 32×90 mm

Three plants have long thin onion-like leaves. The painting is in good condition. Some pigment is missing.

'It is the *baṣal al-fa'r*.³²⁹ It is called *marg mūsh*³³⁰ in Persian.'

[London fol. 91v: 22; Munich fol. 127v: 22-3; Cairo II: 45, 5-6]

Cat. 192³³¹ (Fig. 2.19)

Thistle (*ushturghāz*)

Cirsium, Fam. *Compositae*³³²

Fol. 92r, left side of lines 1-5; 51×92 mm

A tall plant has long pointed oval leaves. The painting is in good condition. Some pigment is missing.

'It is a well-known thorn, which camels eat quickly.'

[London fol. 92r: 4; Munich fol. 128r: 3-4; Cairo II: 45, 17-18]

Cat. 193 (Fig. 2.19)

Soda Plant (*ushnān*)

Arthrocnemum glaucum, Fam. *Chenopodiaceae*³³³

Fol. 92r, left side of lines 7-10; 39×95 mm

A plant with tiny oval leaves. The painting is in good condition.

'It is [also called] *hurq*³³⁴ and is used for washing. Among its finest varieties are the White Soda, which is [also] called *hur' al-ʿaṣāfir* [?],³³⁵ and the Green Soda.'

[London fol. 92r: 7-8; Munich fol. 128r: 10-11; Cairo II: 45, 23-7]

Cat. 194 (Fig. 2.19)**Absinth** (*afsintīn*)*Artemisia absinthium*, Fam. *Compositae*³³⁶

Fol. 92r, left side of lines 12–15; 45×95 mm

Two different plants have minuscule leaves. The painting is in good condition. Some pigment is missing.

‘The leaves of this herb are similar to those of the Wild Thyme.’³³⁷

[London fol. 92r: 12–13; Munich fol. 128r: 17; Cairo II: 45, 34–5]

Cat. 195 (Fig. 2.19)**Chrysanthemum** (*uqḥuwān*)*Chrysanthemum*, Fam. *Compositae*³³⁸

Fol. 92r, left side of lines 17–20; 38×95 mm

Two plants with tiny grey flowers on long thin stems emerge from a tuft of grass. The painting is in good condition.

‘It is called *kūbal*³³⁹ in Persian. It has tiny twigs with white, sometimes red, flowers.’

[London fol. 92r: 17–18; Munich fol. 128r: 22–3; Cairo II: 46, 5–6]

Cat. 196 (Fig. 2.19)**Flax** (*ukshūt*)*Linum usitatissimum*, Fam. *Linaceae*³⁴⁰

Fol. 92r, left side of lines 22–4; 36×92 mm

Two plants have minuscule leaves. The painting is in good condition. Some pigment is missing.

‘This plant twines around trees and thorns. It has no leaves and tastes very bitter. When it twines around the grape vine, it makes its grapes turn bitter.’

[London fol. 92r: 21–2; Munich fol. 128v: 1–2; Cairo II: 46, 12–17]³⁴¹**Cat. 197****Balm** (*bādhraṇjabwiya*)*Melissa officinalis*, Fam. *Labiatae*³⁴²

Fol. 92v, left side of lines 2–6; 45×83 mm

Two plants have oval leaves. The painting is in good condition.

‘It is called *bādrang-bū*³⁴³ in Persian. Ibn Sīnā said that it can kill scorpions and it improves the breath.’

[London fol. 92v: 2–4; Munich fol. 128v: 14–16; Cairo II: 46, 31–4]

Cat. 198**Basil** (*bādhrrūj*)*Ocimum basilicum*, Fam. *Labiatae*³⁴⁴

Fol. 92v, left side of lines 8–11; 40×83 mm

Two plants have oval leaves. The painting is in good condition.

‘This plant is [also] called *istinshāqa*.³⁴⁵ It is said that this [is



Col. 45 *Balm* (bādhranjabwīya), fol. 92v, 45×83 mm; *Basil* (bādhrrūj), fol. 92v, 40×83 mm; *Aubergine* (bādhinjān), fol. 92v, 58×83 mm; *Fava Bean* (bāqilā), fol. 92v, 50×83 mm.

because it] makes one sneeze repeatedly when inhaled. When eaten, it provokes eye-ache and worm growth in the belly.' [London fol. 92v: 7–8; Munich fol. 128v: 20–2; Cairo II: 47, 1–5]

Cat. 199

Aubergine (bādhinjān)

Solanum melongena, Fam. Solanaceae³⁴⁶

Fol. 92v, left side of lines 13–18; 58×83 mm
A tall plant with large oak-like leaves bears small pale-purple aubergines. The painting is in good condition. Some pigment is missing.

'Those who eat it will suffer from bad humours and vicious fantasies.'

[London fol. 92v: 13–14; Munich fol. 128v: 26–7; Cairo II: 47, 14–16]

Cat. 200

Fava Bean (bāqilā)

Vicia faba, Fam. Leguminosae³⁴⁷

Fol. 92v, left side of lines 21–5; 50×83 mm
Several stems have oval leaves, some of which are pale-grey. The painting is in good condition.

'The author of *The Book of Agriculture* said that if one dips [the Fava Bean plant] in fresh natron water before planting it, it will grow faster than all other species.'

[London fol. 92v: 21–2; Munich fol. 129r: 6–8; Cairo II: 47, 37–8]

Cat. 201

Maidenhair Fern (barsiyāwashān)

Adiantum capillus veneris, Fam. Polypodiaceae³⁴⁸

Fol. 93r, left side of lines 2–10; 85×96 mm

A tall plant has a slender trunk with a few winding branches and small round leaves. The painting is in good condition.

'This delicate herb grows in watery basins and on river shores. Its stems are red, shading to black.³⁴⁹ It has neither trunk nor flowers. Its leaves are similar to those of the Celery (*karafs*). It is said that when Afrāsiyāb, the King of the Turks, unjustly killed Siyāvush, son of the King [of Iran], this herb grew from his blood.'³⁵⁰

[London fol. 93r: 6–11; Munich fol. 129r: 16–19; Cairo II: 48, 18–27]

Cat. 202

Mugwort (baranjāsaf)

Artemisia, Fam. Asteraceae³⁵¹

Fol. 93r, left side of lines 12–17; 55×96 mm
Two plants or shrubs have thick branches and yellow and grey oval leaves. The painting is in good condition. Some pigment is missing.

'The leaves of this plant are small and tiny, white and yellow, similar to those of the absinth. They appear in summertime.'

[London fol. 93r: 13–15; Munich fol. 129r: 21–2; Cairo II: 48, 32–5]

Cat. 203

Onion (*baṣāl*)

Allium cepa, Fam. *Alliaceae*³⁵²

Fol. 93r, left side of lines 19–23; 45×96 mm
Three plants have long leaves. The painting is in good condition. Some pigment is missing.

'The author of *The Book of Agriculture* said that if one intends to grow onions, [one must] peel its bulb [before planting it]: it will give good bulbs, and the crop will be much increased.'

[London fol. 93r: 18–19; Munich fol. 129r: 24–6; Cairo II: 49, 3–7]

Cat. 204

Melon (*biṭṭikh*)

Citrullus vulgaris, Fam. *Cucurbitaceae*³⁵³

Fol. 93v, left side of lines 6–11; 56×85 mm
A winding plant with large leaves bears large round melons in orange and pale-green with green stripes. The painting is in good condition. Some pigment is missing.

'The author of *The Book of Agriculture* said that if Melon seeds are soaked in honey and milk, its fruit will be very sweet. If one breaks up twigs of the Manna Plant and the Thistle, then places [Melon] seeds in [the broken twigs and plants them], the Melon will be very sweet: this is what is done by people from Khwārizm.'

[London fol. 93v: 7–10; Munich fol. 129v: 11–15; Cairo II: 50, 1–4 text partially missing]



Col. 46 Maidenhair Fern

(barsiyāwashān), fol. 93r, 85×96 mm;
Mugwort (*baranjāsaf*), fol. 93r, 55×96 mm;
Onion (*baṣāl*), fol. 93r, 45×96 mm.



Col. 47 Melon (*biṭṭikh*), fol. 93v, 56×85 mm; Violet (*banafsaj*), fol. 93v, 36×85 mm.

Cat. 205**Violet (banafsaj)***Viola odorata*, Fam. *Violaceae*³⁵⁴

Fol. 93v, left side of lines 21–4; 36×85 mm

Three low plants have small pale-purple flowers. The painting is in good condition. Some pigment is missing.

'It is a well-known plant that grows in shady remote places.'

[London fol. 93v: 22–3; Munich fol. 130r: 6–7; Cairo II: 51, 4–5]³⁵⁵**Cat. 206****Adonis (bahār)***Adonis vernalis*, Fam. *Ranunculaceae*³⁵⁶

Fol. 94r, left side of lines 2–4; 38×80 mm

Seven stems have oval leaves and yellow flowers. The painting is in good condition. Some pigment is missing.

'This [plant] is called *gāw chashma*³⁵⁷ in Persian which means "eye of the cow". Its flower³⁵⁸ is yellow and its leaves are red in the middle.'

[London fol. 94r: 2–3; Munich fol. 130r: 16–18; Cairo II: 51, 21–3]

**Cat. 207****Aconite (bīsh)***Aconitum*, Fam. *Ranunculaceae*³⁵⁹

Fol. 94r, left side of lines 6–9; 39×80 mm

Two different plants: on the right, one has round pointed leaves; on the left, another has minuscule leaves.³⁶⁰ The painting is in good condition. Some pigment is missing.'[This plant] grows in India. Half a *dirhām*³⁶¹ of it is deadly poisonous. [. . .]

If someone drinks a sip of the juice of this plant, his lips and tongue will swell until he suffocates. It is said that when the King of India intended to kill a rival king, he sent him a girl who had been accustomed to this plant since she was a baby by placing aconite under her cradle.' When the rival king spent the night with that girl, he would be dead by morning.

[London fol. 94r: 4–9; Munich fol. 130r: 21–6; Cairo II: 51, 26–38 and 52, 1–4]

Col. 48 *Adonis (bahār)*, fol. 94r, 38×80 mm; *Aconite (bīsh)*, fol. 94r, 39×80 mm;
Lupine (tirmis), fol. 94r, 39×80 mm;
Garlic (thūm), fol. 94r, 46×80 mm.

Cat. 208**Lupine (tirmis)***Lupinus termis*, Fam. *Leguminosae*³⁶²

Fol. 94r, left side of lines 12–15; 39×80 mm

Three stems have small oak-like leaves. The painting is in good condition. Some pigment is missing.

'It is [also called] "Egyptian Bean" (*al-bāqilā al-miṣrī*). The author of *The Book of Agriculture* said that if one wants to grow it, [one must] plant it at dawn³⁶³ and do it before the rainy season starts.' [London fol. 94r: 12–14; Munich fol. 130v: 1–3; Cairo II: 52, 13–17]

Cat. 209

Garlic (*thūm*)

Allium sativum, Fam. *Alliaceae*³⁶⁴

Fol. 94r, left side of lines 20–4; 46×80 mm

Two plants have onion-like leaves. The painting is partially damaged. The lower part is missing. Some pigment is missing.

'The author of *The Book of Agriculture* said that if one plants Garlic beneath the soil during the days of the moon,³⁶⁵ it will not smell nicely. [Instead], one should await the setting of the Pleiades as the [right] time to plant it. Chewing its leaves is effective against eye inflammation, and its powder is more useful than any other.'

[London fol. 94r: 19–23; Munich fol. 130v: 11–12; Cairo II: 52, 33–7]

Cat. 210

Millet (*jāwars*)

Panicum miliaceum, Fam. *Graminae*³⁶⁶

Fol. 94v, left side of lines 8–14; 65×85 mm

Several yellow ears of corn are pictured amidst tall plants with long pointed leaves. The painting is in good condition. Some pigment is missing.

'It is [also called] "Pearl Millet" (*dukhṇ*). The author of *The Book of Agriculture* said that the soil on which Millet is grown will become unproductive and will not be useful for a long time. Its seeds rest [in the soil] for a long period [before sprouting]. Plant epidemics do not affect [Millet]: for this reason people continue [to grow] it for fear of famine.'

[London fol. 94v: 10–14; Munich fol. 130v: 25–7 and fol. 131r: 1; Cairo II: 53, 31–7]

Cat. 211

Rocket (*jirjir*)

Eruca sativa, Fam. *Cruciferae*³⁶⁷

Fol. 94v, left side of lines 17–20; 39×93 mm

Five stems bend to the right with large oval leaves. The painting is in good condition. Some pigment is missing.

'It is the *ayḥuqān*.³⁶⁸ The author of



Col. 49 Millet (*jāwars*), fol. 94v, 65×85 mm; Rocket (*jirjir*), fol. 94v, 39×93 mm; Carrot (*jazar*), fol. 94v, 39×93 mm.

The Book of Agriculture said that if it is grown among leguminous plants, it is useful and increases their growth, [also because] it pushes away worms and similar animals.'

[London fol. 94v: 15–16; Munich fol. 131r: 3–5; Cairo II: 54, 1–4]

Cat. 212

Carrot (*jazar*)

Daucus carota, Fam. *Umbelliferae*³⁶⁹

Fol. 94v, left side of lines 22–5; 39×93 mm

Three small plants have thin long leaves. Yellow carrots are visible half-buried in the ground. The painting is in good condition.

'[This plant] is well-known. If one cooks its root in honey and eats five *dirhāms* of it every day, sexual potency will be greatly increased.'

[London fol. 94v: 23–4; Munich fol. 131r: 11–12; Cairo II: 54, 19–22]

Cat. 213 (Fig. 5.20)

Manna Plant (*hājī*)

Alhagi, Fam. *Leguminosae*³⁷⁰

Fol. 95r, left side of lines 2–7; 58×96 mm

A tall plant has a thick stem and thin needle-like leaves. The painting is in good condition. Some pigment is missing.

'This plant has plenty of thorns. Manna³⁷¹ falls over it and coats it. It is found especially in Khorasan and Transoxiana and the nearby areas. Among the varieties of this plant, the *sadr*³⁷² has very long thorns and spikes, and is a favourite plant of camels, which are not annoyed by its thorns and eat it quickly.'

[London fol. 95r: 2–6; Munich fol. 131r: 15–20; Cairo II: 54, 26–34]

Cat. 214 (Fig. 5.20)

Thyme (*hashā'*)

Thymus, Fam. *Labiatae*³⁷³

Fol. 95r, left side of lines 9–12; 38×99 mm

Two plants have small oval leaves. The plant on the left has red flowers whereas the other has larger leaves but no flowers. The painting is in good condition. Some pigment is missing.

'This herb has round red flowers and tiny leaves. Dioscorides³⁷⁴ said that it is the most common plant in the desert.'

[London fol. 95r: 8–9; Munich fol. 131r: 21–3; Cairo II: 54, 39]

Cat. 215 (Fig. 5.20)

Cress (*hurf*)

Lepidium sativum, Fam. *Cruciferae*³⁷⁵

Fol. 95r, right side of lines 14–15; 30×71 mm

Two small plants have minuscule oval leaves. The painting is slightly damaged. Some pigment is missing.

'It is [also called] "Garden Peppergrass" (*rishād*)³⁷⁶ and also called [in Persian] *sapandān*.³⁷⁷

[London fol. 95r: 11–12; Munich fol. 131r: 24; Cairo II: 55, 4 text partially missing]

Cat. 216 (Fig. 5.20)

Cardoon or Artichoke (*harshaf*)

Cynara, Fam. *Compositae*³⁷⁸

Fol. 95r, left side of lines 16–19; 44×99 mm

Three plants have small oval leaves and red and white tiny fruit. The painting is in good condition. Some pigment is missing.

‘This plant is thorny. It is called *kangar*³⁷⁹ in Persian.’

[London fol. 95r: 16–17; Munich fol. 131v: 1–2; Cairo II: 55, 16–17]

Cat. 217 (Fig. 5.20)

Harmel (*harmal*)

Peganum harmala, Fam. *Zygophyllaceae*³⁸⁰

Fol. 95r, right side of lines 20–4; 50×71 mm

Two plants have oval leaves and large green fruit at the extremities. The painting is in good condition. Some pigment is missing.

‘It is called *sipand*³⁸¹ in Persian. Its smell is acute and unpleasant.’

[London fol. 95r: 20–1; Munich fol. 131v: 6; Cairo II: 55, 25–6]

Cat. 218

Caltrops (*hasak*)

Tribulus terrestris, Fam. *Zygophyllaceae*³⁸²

Fol. 95v, left side of lines 3–6; 39×94 mm

Two plants have tiny oval leaves and large star-shaped green flowers at the extremities. The painting is in good condition.

‘This yellowish plant has curling thorns.’

[London fol. 95v: 3; Munich fol. 131v: 12; Cairo II: 55, 32–4]

Cat. 219

Fenugreek (*hulba*)

Trigonella foenum graecum, Fam. *Leguminosae*³⁸³

Fol. 95v, left side of lines 8–12; 46×94 mm

Two plants have tiny leaves and green rosette-shaped flowers at the extremities. The painting is in good condition.

‘It is a well-known plant.’

[London fol. 95v: 9; Munich fol. 131v: 19–20; Cairo II: 56 text missing]



Col. 50 *Caltrops* (*hasak*), fol. 95v, 39×94 mm; *Fenugreek* (*hulba*), fol. 95v, 46×94 mm; *Chickpea* (*himmas*), fol. 95v, 49×94 mm; *Melilot* (*handaqūqī*), fol. 95v, 29×94 mm.

Cat. 220**Chickpea** (*ḥimmaṣ*)*Cicer arietinum*, Fam. Leguminosae³⁸⁴

Fol. 95v, left side of lines 15–19; 49×94 mm

Four pale-yellow ears of corn appear at the end of slender plants with long thin leaves. The plants lean to the right. The painting is in good condition.

'It is a well-known plant. Ibn Sīnā said that he who eats it will acquire a better complexion.'

[London fol. 95v: 14; Munich fol. 131v: 25–7; Cairo II: 56, 13–14]

Cat. 221**Melilot** (*ḥandaqūqī*)*Melilotus*, Fam. Leguminosae³⁸⁵

Fol. 95v, left side of lines 22–4; 29×94 mm

A small plant has tiny leaves. The painting is in good condition. Some pigment is missing.

'It is called *dev-isfist*³⁸⁶ in Persian. One of its properties is its usefulness against the snake bite.'

[London fol. 95v: 20; Munich fol. 132r: 4–5; Cairo II: 56, 22–3]

Cat. 222**Colocynth** (*ḥanzāl*)*Citrullus colocynthis*, Fam. Cucurbitaceae³⁸⁷

Fol. 96r, left side of lines 1–5; 47×85 mm

Two plants have small oval leaves and large round green fruit at the extremities. The painting is in good condition. Some pigment is missing.

'It is a well-known plant. Gazelles like it,³⁸⁸ [but other] wild animals avoid Colocynth and every plant that bears a single fruit of colocynth, [since] it is very dangerous [for them]. Its fresh leaves stop haemorrhage.'

[London fol. 96r: 1–4; Munich fol. 132r: 11–16; Cairo II: 57, 1–8]

Cat. 223**Wheat** (*ḥinṭa*)*Triticum*, Fam. Graminae³⁸⁹

Fol. 96r, left side of lines 12–17; 55×85 mm

Four pale-yellow ears of wheat appear at the end of slender stems with long thin leaves. The painting is in good condition.

'Ka'b al-Aḥbār said: "When Adam (peace upon him) was thrown down [to earth, the Archangel] Michael (peace upon him) came to him with a few seeds of wheat and told him: 'This is the sustenance for you and your children, get up, plough the soil and spread the seeds.' And the sowing continued from the time of Adam to that of Idrīs."³⁹⁰

[London fol. 96r: 13–17; Munich fol. 132r: 25–7 and fol. 132v: 1; Cairo II: 57, 34–8 and 58, 1–5]

Cat. 224

Mallow (*khubbāzī*)

Malva sylvestris, Fam. *Malvaceae*³⁹¹

Fol. 96r, left side of lines 22–5; 43×85 mm

Two low plants emerge from tufts of grass. Their slender stems have oval leaves and large green fruit at the extremities. The painting is in good condition. Some pigment is missing.

'This well-known herb closes its leaves at night and opens them in daylight. If [body parts affected by] mange, scabies or louse[bites] are coated with its leaves, they will be healed. It is also useful against wasp stings, especially when bandaged with oil.'

[London fol. 96r: 22–4; Munich fol. 132v: 17–19; Cairo II: 58, 25–30]

Cat. 225

Hellebore (*kharbaq*)

Veratrum spp., Fam. *Liliaceae*³⁹²

Fol. 96v, left side of line 2–6; 45×88 mm

Two plants have slender stems and large star-shaped oval leaves at the extremities. The painting is in good condition.

'The leaves of this plant are similar to those of the Plane Tree. Its stem is small, and the shape [of its flowers] resembles [grape] clusters. The author of *The Book of Agriculture* said that if a twig of hellebore is planted in the garden, all gnats will die.'

[London fol. 96v: 2–5; Munich fol. 132v: 23–6; Cairo II: 58, 36–8 and 59, 1]

Cat. 226

Mustard (*khardal*)

Sinapis, Fam. *Cruciferae*³⁹³

Fol. 96v, left side of lines 13–17; 48×88 mm

A plant with large pointed oak-like leaves emerges from a tuft of grass. The painting is in good condition.

'It is a well-known plant. Its seeds, soaked in grape juice, prevent [the juice] from



Col. 51 *Colocynth* (*ḥanẓal*), fol. 96r, 47×85 mm; *Wheat* (*ḥiṭṭa*), fol. 96r, 55×85 mm; *Mallow* (*khubbāzī*), fol. 96r, 43×85 mm.



Col. 52 *Hellebore* (*kharbaq*), fol. 96v, 45×88 mm; *Mustard* (*khardal*), fol. 96v, 48×88 mm; *Lettuce* (*khass*), fol. 96v, 30×88 mm.

fermenting, thus keeping it [fresh]. Muḥammad ibn Zakariyā [al-Rāzī] said that if mustard is rubbed on [the part] bitten by a snake, it will be healed.'

[London fol. 96v: 12–14; Munich fol. 133r: 6–8; Cairo II: 59, 23–8]

Cat. 227

Lettuce (*khass*)

Lactuca sativa, Fam. *Compositae*³⁹⁴

Fol. 96v, left side of lines 20–2; 30×88 mm

Two compact low plants have large pointed oval leaves. The painting is in good condition. Some pigment is missing.

'It is a well-known plant. The author of *The Book of Agriculture* said that if one scatters its seeds amongst Anise and makes them grow, all kinds of [plant] epidemics will be prevented. If camel dung is taken, a hole is made in it, and seeds of Lettuce, Rocket and Peppergrass are placed in it together, then [a hole] is dug, covered with soil and watered, eventually a single stalk will grow which bears all three species of plants.'

[London fol. 96v: 19–22; Munich fol. 133r: 13–20; Cairo II: 59, 38 and 60, 1–9]

Cat. 228 (Fig. 2.25)

Caraway (*karawiyā*)

Carum carvi, Fam. *Umbelliferae*³⁹⁵

Fol. 97r, left side of lines 4–8; 47×85 mm

A plant has oval leaves and round green fruit at the end of its stems. The painting is in good condition.

'It is a well-known plant. Ibn Sīnā said that it drives [bad] smells away, and that it is useful against an [irregular] heartbeat.'

[London fol. 97r: 4–5; Munich fol. 140v: 19; Cairo II: 79, 35–7]

Cat. 229 (Fig. 2.25)

Coriander (*kuzbura*)

Coriandrum sativum, Fam. *Umbelliferae*³⁹⁶

Fol. 97r, right side of lines 9–13; 50×78 mm

Two plants have round leaves, which are pointed in the plant on the left. The painting is in good condition.

'It is a well-known plant. The wise Balīnās³⁹⁷ said that if a plant of Coriander is gently pulled out with its roots [intact], and is then suspended to the thigh of a woman in labour, she will give birth at once.'

[London fol. 97r: 7–9; Munich fol. 140v: 22–3; Cairo II: 80, 1–3]³⁹⁸

Cat. 230 (Fig. 2.25)

Cumin (*kammūn*)

Cuminum cyminum, Fam. *Umbelliferae*³⁹⁹

Fol. 97r, left side of lines 14–19; 56×97 mm

A tall plant has oval leaves and round green fruit at the end of its stems. The painting is in good condition.

'It is a well-known plant. It is said that pigeons are fond of it, so if one wants to domesticate them and make them settle, [one must] scatter a few [seeds] of Cumin as fodder before leaving home, and they will become fond of that place. Ants are driven away by its smell.'
[London fol. 97r: 19–21; Munich fol. 141r: 6–7; Cairo II: 80, 21–6]⁴⁰⁰

Cat. 231 (Fig. 2.26)

Ivy or Lablab (*lablāb*)

Hedera helix, Fam. *Araliaceae* or *Dolichos lablab*, Fam. *Leguminosae*⁴⁰¹

Fol. 97v, left side of lines 4–7; 34×78 mm

A plant has slender winding tendrils with small oval leaves. It twines around another plant with large oval leaves. The painting is in good condition.

'It is [also] called "rope of the poor".⁴⁰² It twines around trees and climbs by means of tiny tendrils. It has long leaves.'

[London fol. 97v: 4–5; Munich fol. 141v: 1–3; Cairo II: 81, 18–21]

Cat. 232 (Fig. 2.26)

Plantago (*lisān al-ḥamal*)

Plantago, Fam. *Plantaginaceae*⁴⁰³

Fol. 97v, right side of lines 8–12; 48×81 mm

A low plant has long thick leaves edged in red. Much pigment is missing from the leaves, thus revealing white pigment underneath. On either side are two small plants with minuscule leaves. The painting is damaged.

'The shape of the leaves of this plant resembles that of a ram's tongue.'⁴⁰⁴

[London fol. 97v: 8; Munich fol. 141v: 6; Cairo II: 81, 26–7]⁴⁰⁵

Cat. 233 (Fig. 2.26)

Caper (*laṣaf*)

Capparis, Fam. *Capparaceae*⁴⁰⁶

Fol. 97v, left side of lines 14–18; 48×82 mm

Two different plants: on the left, one with oval leaves on slender stems; on the right, another with large oval leaves which winds to the ground.⁴⁰⁷ The painting is in good condition.

'It is called *kabar*⁴⁰⁸ in Persian. Its fruits are similar to the Cucumber (*quṭṭā*'). Its juice gives protection from fever.'

[London fol. 97v: 14–16; Munich fol. 141v: 14 and 16–17; Cairo II: 81, 38 and 82, 1–3]

Cat. 234 (Fig. 2.26)

Mandrake (*luffāḥ*)

Mandragora officinalis, Fam. *Solanaceae*⁴⁰⁹

Fol. 97v, left side of lines 21–5; 50×87 mm

A plant bears three large pale-green flowers formed by five petals. The painting is damaged. Much pigment is missing, exposing white pigment underneath.

‘Among [others], a variety [of Mandrake] has white leaves and no stem. It is said that it[s sex] is [only] male. It has an acute smell, and causes heart attacks. Its leaves [are useful when] rubbed on leprosy [wounds] for a week, and they [also] soothe other wounds.’

[London fol. 97v: 20–1; Munich fol. 141v: 21–4; Cairo II: 82, 12–17]

Cat. 235

Lubia Bean (*lūbiyā*)

Phaseolus vulgaris, Fam. *Leguminosae*⁴¹⁰

Fol. 98r, left side of lines 3–6; 36×78 mm

Two small winding plants have minuscule leaves. The painting is in good condition.

‘It is a well-known plant. Ibn Sīnā said that he who eats it will have bad dreams.’

[London fol. 98r: 3–4; Munich fol. 142r: 4–6; Cairo II: 82, 37 and 83, 1]



Col. 53 *Lubia Bean* (*lūbiyā*), fol. 98r, 36×78 mm; *Water Lily* (*laynāfir*), fol. 98r, 47×80 mm; *Mullein* (*māhizahraj*), fol. 98r, 53×87 mm.

Cat. 236

Water Lily (*laynāfir*)

Nymphaea, Fam. *Nymphaeaceae*⁴¹¹

Fol. 98r, left side of lines 9–13; 47×80 mm

Three low plants have long pointed leaves. A large bell-shaped red flower rises from each plant. Three open flowers are on the foreground. The painting is in good condition. Some pigment is missing.

‘This plant has a pleasant smell. It grows in swampy grounds and in still water. [...] Its [flowers] disappear during the day, but [re]appear at night.’⁴¹²

[London fol. 98r: 6–7; Munich fol. 142r: 12–14; Cairo II: 83, 5–9]⁴¹³

Cat. 237

Mullein (*māhizahraj*)

Verbascum thapsus, Fam. *Scrophulariaceae*⁴¹⁴

Fol. 98r, left side of lines 21–5; 53×87 mm

Two plants have slender stems and oval pointed leaves. The painting is slightly damaged. Some pigment is missing.

‘This plant has a thin erect stem. Its leaves are similar to those of the tarragon (*ṭarkhūn*). They are [also] very similar to

those of the spurge (*shubram*),⁴¹⁵ only a little longer. Their colour varies from dust-like to yellow. People enumerate many species. If [this plant] is thrown in a pond, fish become intoxicated and rise to the surface.⁴¹⁶

[London fol. 98r: 23–5 and fol. 98v: 1; Munich fol. 142v: 12–16; Cairo II: 84, 23–31]

Cat. 238 (Fig. 5.21)

Marjoram (*marzanjūsh*)

Majorana hortensis, Fam. *Labiatae*⁴¹⁷

Fol. 98v, left side of lines 2–6; 42×74 mm

Three plants have slender winding stems. The oval leaves of the plant in the middle are larger than those on the sides. The painting is in good condition.

‘This plant has a pleasant smell.’

[London fol. 98v: 2; Munich fol. 142v: 17; Cairo II: 84, 33–4]

Cat. 239 (Fig. 5.21)

Nard or Valerian (*nārdīn*)

Nardus, Fam. *Umbelliferae* or *Valeriana celtica*, Fam. *Valerianaceae*⁴¹⁸

Fol. 98v, right side of lines 8–10; 30×90 mm

Two yellow ears of corn appear at the end of slender stems with long thin leaves. They lean to the left. On the right, a low plant with large leaves. The painting is in good condition.

‘It is [also called] “Spikenard of Rūm” (*sunbul rūmī*). Its leaves are similar to those of the Safflower (‘*uṣfur*). Its twigs are yellow and smooth. It has no stem, no flowers, and gives no fruit. It grows at the edge of springs.’

[London fol. 98v: 7–8; Munich fol. 142v: 23–5; Cairo II: 85, 6–10]

Cat. 240 (Fig. 5.21)

Anise (*nānkhawāh*)

Anisum, Fam. *Umbelliferae*⁴¹⁹

Fol. 98v, left side of lines 11–13; 30×90 mm

Two plants have oval leaves. The painting is in good condition.

‘It is a well-known plant. The author of *The Book of Agriculture* said that if sheep are foraged with Anise in winter, [rams] will have more sperm and the female sheep will give birth to twins. [Also the production of] wool and milk will be increased. Ticks and honey bees are driven away by this plant.’

[London fol. 98v: 10–13; Munich fol. 143r: 1–5; Cairo II: 85, 13–19]

Cat. 241 (Fig. 5.21)

Narcissus (*narjis*)

Narcissus, Fam. *Amaryllidaceae*⁴²⁰

Fol. 98v, left side of lines 19–25; 68×80 mm

A tall plant with long slender leaves emerges from the ground. It bears light grey flowers with purple buttons. The painting is in good condition. Some pigment is missing.

'The Prophet (God bless him and grant him salvation) said: "Smell the Narcissus! Those who are afflicted by leprosy or madness between the chest and the heart [will be able to] overcome them only by smelling the Narcissus." Galen⁴²¹ said that he who possesses two loaves of bread should give one of them up for the price of a Narcissus, because bread is nourishment for the stomach whereas the Narcissus is food for the soul.'

[London fol. 98v: 16–18; Munich fol. 143r: 8–13; Cairo II: 85, 31–8]

The Animal Kingdom

*The Jinns*⁴²²

Cat. 242 (Fig. 2.17)

The Jinn Named 'Dilhāth'⁴²³

Fol. 99r, left side of lines 6–12; 62×98 mm

A naked haloed human figure rides a large white bird with an orange beak and legs. He seizes the bird's neck with his right hand. The painting is in good condition. Some pigment is missing.

'This is one of the spirits living in a certain island in the sea. He has human aspect and rides an ostrich. He eats the flesh of those thrown by the sea [on to his island]. One [writer] said that the Dilhāth finds his way on board of ships at sea and attempts to catch [some sailors], and [as] they [try to] fight him, the [Dilhāth] utters a cry that makes them collapse, so he [can] seize them.'⁴²⁴

[London fol. 99r: 5–10; Munich fol. 166v: 11–14; Cairo II: 178, 24–34]

Cat. 243 (Fig. 2.17)

The Jinn Named 'Shiqq'

Fol. 99r, right side of lines 13–21; 88×132 mm

A man wearing a long dark blue tunic and a turban faces a slender naked human figure. The man holds a sword high in his right hand. The naked figure is in profile and only one arm and one leg are visible. The painting is in good condition. Some pigment is missing.

'This is one of the spirits whose aspect is that of a half-man [cut in two vertically]. It is said that the "Nasnās"⁴²⁵ are the Shiqq's mounts and that they [both] appear to human beings while travelling. It is reported that one night 'Alqam ibn Ṣafwān ibn Ummiya travelled and ended in a place known as Ḥumān. The Shiqq went to him [and] 'Alqam thought "I am [certainly] dead".' [. . .] 'Alqam decided to try to fight the jinn with his sword. [. . .] 'Then he said: "Shiqq, come here and face what was decreed for you!", and they beat each other until both lay dead. It is known that 'Alqam ibn Ṣafwān killed that jinn.'⁴²⁶

[London fol. 99r: 11–23; Munich fol. 166v: 14–21 and fol. 167r: 1; Cairo II: 178, 35–8 and 179, 1–16]

Cat. 244 (Fig. 3.2)

Iblīs, the Devil⁴²⁷

Fol. 99v, between lines 4 and 5; 105×170 mm

Iblīs sits on his throne on a watery foreground. He is haloed and bearded, has bovine horns, gold and green wings, and a tail which ends in a snake's head. On his right is a jinn in the figure of a rooster with gold and red wings. On his left is another jinn, a black donkey with gold and white wings and a red skirt, conversing with Iblīs. On his far left is a third jinn in the guise of a horned feline, wearing a green skirt. The painting is slightly damaged. Iblīs's legs are retouched. Pigment is missing, particularly on the right side of the painting.

‘Jābir ibn ‘Abd Allāh (God bless him)⁴²⁸ states that the Prophet (upon Him benediction) said: “Iblīs's throne is standing on water. [Once] he called forth his companies [of devils], and [all of them from] the most important to the lowest [went] to him. He was sitting [on his throne]. One of them came and said: ‘I have done this and that.’ [Iblīs] rebutted: ‘You did not do anything!’ Another came and said: ‘I did [something: I did] not leave [you] so that you should not be left alone, [abandoned] by your people.’ He said: ‘Yes, you are [my son]’, and let him stay close to him.”⁴²⁹

[London fol. 99v: 3–6; Munich fol. 167r: 10–13; Cairo II: 179, 38 and 180, 1–11]

Cat. 245–7⁴³⁰ (Figs 2.2–2.3)

Solomon and His Jinns⁴³¹

Cat 245: fol. 100r, between lines 1 and 2; 135×168 mm

Solomon sits on his throne in the centre of the illustration. Two winged figures wearing red robes float above the throne holding a scarf. Their legs are turned into two floating blue ribbons. Two men sit on folding chairs on either side of the throne and talk to Solomon. One of them holds a book. Two jinns stand on the right and left thus completing the painting's symmetry: one is in the shape of a horned white bird wearing a red skirt, the other of a bovine wearing a white skirt. The painting is partially damaged. The upper part of Solomon's throne is patched; the rest is original. Some pigment is missing.

Cat. 246: fol. 100v, between lines 8 and 9; 105×170 mm

This illustration shows the same composition as the previous painting (cat. 245) but for the winged figures above the throne, which are here missing, and for the replacement of one of the men talking to Solomon with a jinn in the shape of a bovine wearing blue trousers. The two jinns standing on each side have birds' legs and ghastly human faces. The painting is partially damaged. The lower part of

the seat of the throne is patched. The figure of the man is heavily damaged. Some pigment is missing.

Cat. 247: fol. 100v, left side of lines 9–15; 57×90 mm

A pale-grey hare and a pale-brown dog, or wolf, face each other. They sit on the grassy foreground. The painting is in good condition.

‘God made the jinns submit to Solomon: [the archangel] Gabriel summoned all jinns and spirits, and they answered the call of God for His prophet Solomon. All spirits came out from caves, mountains, hills, wadis and deserts and said: “At your service, at your service!” [. . .] That day they were four hundred and twenty, all of them different: [. . .] white and black, yellow, red, light skinned and piebald, in the figure of horses, mules, beasts, and provided with trunks, tails, hoofs, and horns. [. . .] Solomon stood, his ring on his finger,⁴³² and all jinns and spirits prostrated themselves worshipping him, then they lifted their heads and said: “Oh son of David, we are all gathered for you, we shall serve you with obedience!”’ Solomon ordered them to perform many different tasks, and his power was strengthened. ‘[. . .] Among them are those who had their face on the nape of their neck and fire projecting from their bodies; those who walked four-legged; those with two heads; those with lion-like faces. Solomon saw one of them, half-dog and half-cat with a long trunk, and asked “Who are you?” “I am Mahr ibn Hafān ibn Filān.” Solomon asked: “What do you do in the place where you come from?” “We sing and drink wine.” “Where is your place?” “Wādī al-Sind, and we bring songs and wine to the human beings.” Solomon ordered it to be tied up.’⁴³³ [London fol. 99v: 6–10 and 12–13, fol. 100v: 7–15; Munich fol. 167r: 14–23 and fol. 167v: 18–21; Cairo II: 180, 11–38, 181, 1–5 and 183, 14–30]

Cat. 248 (Fig. 3.16)

The Jinn That Looks Like a Dog

Fol. 101r, left side of lines 1–7; 68×86 mm

A pale-orange furry creature with a human body. Its head and tail are like those of a dog. It stands, in left profile, with raised arms. The painting is in good condition. Some pigment is missing.

‘Then another [jinn] came, of ugly shape, black and looking like a dog.⁴³⁴ Blood ran from the hair on its belly. [Solomon] asked: “Who are you?” “I am Hilhāl ibn al-Muḥawwal.” He said: “What do you do?” “I shed blood.” Solomon ordered it to be tied up [but the jinn] said: “Oh Prophet of God, do not tie me up because I will make the giants of earth submit to you and give you the knowledge [to avoid] corrupting your reign.” So they made a pact, he put a collar around his neck and freed him.’

[London fol. 101r: 1–7; Munich fol. 167v: 22–4; Cairo II: 183, 31–7 and 184, 1–7]

Cat. 249 (Fig. 3.16)**The Jinn That Looks Like an Ape**

Fol. 101r, right side of lines 8–13; 65×75 mm

A brown monkey plays a lute. It looks backwards as if speaking to someone. The painting is slightly damaged. Some pigment is missing.

‘Another [jinn] came in the figure of an ape provided with claws like scythes. He was holding a lute (*barbat*).⁴³⁵ Solomon asked him: “Who are you?” He replied: “My name is Murra ibn al-Ḥarith.” “What do you do?” “I am the first [creature] who used this lute and took it around. Nobody can find the sweetness of pleasure except in [its sound].” He ordered him to be tied up.’

[London fol. 101r: 8–12; Munich fol. 167v: 24–6; Cairo II: 184, 7–15]

Cat. 250⁴³⁶ (Fig. 3.17)**The Man and the Jinn That Turns into a Serpent and a Camel**

Fol. 101v, left side of lines 1–11; 110×140 mm

A man sits at the door of a square yellow brick building. He holds a camel on a leash. The animal stands on the grassy foreground in front of the building. It is brown and fully caparisoned with a gold blanket and a gold and red saddle. The painting is in good condition. Some pigment is missing.

‘Abū ‘Ubayda⁴³⁷ said: “‘Abīd ibn al-Abrāṣ⁴³⁸ intended to go to Syria; while he was on his way he met a serpent⁴³⁹ panting with thirst, so ‘Abīd dismounted from his camel, took his water and quenched the serpent’s thirst. Then he continued his journey to Syria, and when his business was over he headed back. One night his camel strayed and deviated from the right path. [. . .] He dismounted and let it go free; he saw another camel and rode it, and it did not take long before he saw the door of his house even though he was twenty stations away from it.”’ The camel revealed itself to be the jinn looking like a serpent whose life was saved by the man who gave up his water.⁴⁴⁰

[London fol. 101r: 13–16 and 18–25 and fol. 101v: 1; Munich fol. 167v: 26–7 and fol. 168r: 1–7; Cairo II: 184, 15–40 and 185, 1–19]

Cat. 251–2 (Figs 3.17–3.18)**The Man and the Girl Kidnapped by a Jinn**

Cat. 251:⁴⁴¹ fol. 101v, left side of lines 18–19 and below line 19; 78×168 mm

A man and a woman stand beside a low white tent with a blue and red decoration. The man wears a red tunic and seems to indicate the tent to the woman, who wears a long grey veil above her tunic. A camel sits behind the two figures. The painting is slightly damaged. The left part of the tent is patched. The camel’s head is damaged. The rest is original. Some pigment is missing.

Cat. 252: fol. 102r, left side of lines 6–13; 77×109 mm

On the left, a man stands with raised arms. His back is turned away from a group formed by the same man, woman and camel illustrated

in the previous painting (cat. 251). Both men wear a turban ending in a long red point. The group sits on the grass behind the man. The painting is in good condition.

‘Umar ibn al-Khaṭṭāb told this story on jinns in the assembly, concerning a man of the tribe of the Banū al-Harith:⁴⁴² ‘I intended to go to Syria. I fell behind my companions and found myself alone when darkness came. I had a fire lit. While I was in my tent [I saw] a beautiful girl standing in front of it, so I asked her: ‘What are you doing in this place?’ She replied: ‘A *‘ifrīt*⁴⁴³ kidnapped me; he disappears overnight and comes back with the daylight.’ I said: ‘Do you want to stay with me?’ She answered: ‘I fear I would be in great danger [if I stayed with you].’ I convinced her and urged her to ride my camel and we ran away. We rode until the moon set and [after that] I became intimate with her.’” [. . .] The jinn pursued them but the man made his camel kneel, drew a line in a circle around the animal and recited verses from the Qur’an. The jinn made several offers to the man to convince him to part with the girl, but he refused and kept her.⁴⁴⁴

[London fol. 101v: 16–19 and fol. 102r: 1–3; Munich fol. 168r: 12–22; Cairo II: 186, 3–28]

Cat. 253 (Fig. 5.22)

The Shepherd and the Jinn Who Made a Wolf Free His Sheep

Fol. 102r, right side of lines 16–24; 85×87mm

A shepherd beats a wolf which has just attacked a sheep. The man wears a short purple tunic and a red cap. The painting is slightly damaged. The man’s face is damaged.

‘It is said that a shepherd had descended to a valley with his sheep, when a wolf came along [and took] one of his sheep. He rose and shouted: “Oh *‘āmir*⁴⁴⁵ of the valley!” Then he heard a voice saying: “Oh wolf, give him back his sheep!” The wolf gave up the sheep and walked away.’

[London fol. 102r: 15–18; Munich fol. 168r: 22–4; Cairo II: 187, 25–31]

Cat. 254⁴⁴⁶ (Fig. 4.5)

The Singer Ibrāhīm and the Jinn Disguised as an Old Man

Fol. 102v, left side of lines 12–19; 80×117 mm

Two men sitting under the arched vault of a square yellow brick building. They are both haloed. The figure on the left plays a lute, his head bent to look at his instrument. The man on his right offers him a drink and holds a beaker and a bottle in his hands. The painting is slightly damaged. The face of the lute-player and his body are damaged; the rest is in good condition.

‘Ibrāhīm ibn al-Mahdī ibn al-Manṣūr said that [his master] Muḥammad al-Amīn [once] got angry with him and forced him to do a number of domestic services. Then he ordered him to be confined in the *sirdāb* and locked the door. Ibrāhīm was an incomparable singer. He said that he remained in the *sirdāb* that night. When

morning came an old man [a jinn] sprang from a corner of the *sirdāb*, pushed him on the chest and said "Eat!" and he ate, then he took a bottle out and told him: "Drink!" and he drank, then he said: "Sing!" [and he sang]. [. . .] He listened to his beautiful voice and then went to Muḥammad al-Amīn and said: "Your cousin [deserves] sympathy; he is there [in the *sirdāb*] sitting and singing." So [al-Amīn] ordered [Ibrāhīm] to be brought to him, [who] told him the story [of the jinn disguised as an old man]. [Al-Amīn] was pleased with Ibrāhīm and ordered him to be given one thousand seven hundred *dirhāms*.' [London fol. 102v: 9–20; Munich fol. 168v: 13–20; Cairo II: 189, 1–25]

Mounts

Cat. 255

Horse (*faras*)

Equus caballus, Fam. *Equidae*, Ord. *Perissodactyla*

Fol. 103r, left side of lines 11–18; 77×128 mm

A pale-greyish-blue horse, shown in left profile, stands on a grassy foreground. The painting is heavily damaged. The forepart of the horse is missing. Its back is patched. Only its gold belly,⁴⁴⁷ hind legs and tail are original.

'It is the most beautiful of animals, second only to Man for the shape [of its body]. It is the best among the riding animals in racing and intelligence, and possesses praiseworthy qualities and a pleasant character. [The horse] is lightly coloured, its body is beautiful and harmonious, and it is an obedient animal.'

[London fol. 103r: 10–13; Munich fol. 169r: 8–10; Cairo II: 190, 34–8]

Cat. 256

Mule (*baghl*)

Equus, Fam. *Equidae*, Ord. *Perissodactyla*⁴⁴⁸

Fol. 103v, right side of lines 8–16; 87×95 mm

A pale-greyish-blue mule with long ears, seen in left profile, stands on a grassy foreground. The painting is heavily damaged. A large part of the body is missing. Its head, forelegs and gold chest are original.

'It is a cross between a horse and a donkey. It is closer to a horse if the donkey is its father, but if the donkey is its mother it more resembles a donkey. It is strange [to notice] that all [mules also] are a cross between horse and donkey as far as their character is concerned: they show neither the intelligence of a horse nor the stupidity of a donkey. Their aspect and manner of walking are also between a horse and a donkey. The mule is sterile: some people say [it is because] the foetus does not adhere to the womb, others that it does so but the [mother's] vagina is so small that the colt cannot pass through and the mother dies.'

[London fol. 103v: 7–15; Munich fol. 169v: 10–15; Cairo II: 192, 24–37 and 193, 1–3]



Col. 54 Horse (faras), fol. 103r, 77×128 mm; Mule (baghl), fol. 103v, 87×95 mm; Onager (himar al-wahsh), fol. 104r, 59×80 mm.

Cat. 257⁴⁴⁹ (Fig. 2.20)

Donkey (*ḥimār*)

Equus asinus, Fam. Equidae, Ord. Perissodactyla

Fol. 104r, left side of lines 2–10; 84×94 mm

A black donkey, depicted in left profile, stands on a grassy foreground. It has long ears and wears a gold collar. It licks its raised right foreleg. The painting is in good condition.

‘When [the Donkey] travels on a road [once], it never forgets it: if the driver gets lost he pushes the donkey ahead to find the way walking as it likes, either left or right, because [it will] take the [right] path. When [the donkey] walks it keeps bobbing its head, ears and tail: this means that it is on the [right] path. It is said that a dog feels back pain when it hears a donkey braying.’

[London fol. 103v: 24–5 and fol. 104r: 1; Munich fol. 170r: 6–8; Cairo II: 193, 37 and 194, 1–10]

Cat. 258

Onager (*ḥimār al-waḥsh*)

Equus hemionus onager, Fam. Equidae, Ord. Perissodactyla

Fol. 104r, left side of lines 20–5; 59×80 mm

A pale-purple onager, seen in left profile, stands on the grassy foreground. Its right foreleg is raised. It has long ears. The painting is slightly damaged. The back is retouched; the rest is original.

‘[Onagers] are all alike. It is said that when a stallion comes across a young male it removes its testicles in order to get rid of a [potential] rival.’

[London fol. 104r: 24–5 and fol. 104v: 1; Munich fol. 170v: 8–10; Cairo II: 195, 23–8]

Grazing Livestock

Cat. 259⁴⁵⁰ (Fig. 2.5)

Bactrian Camel (*ibl*)

Camelus bactrianus, Fam. Camelidae, Ord. Artiodactyla⁴⁵¹

Fol. 105r, left side of lines 4–13; 95×138 mm

A brown camel in the foreground, painted in left profile, strips and eats a palm-leaf. Behind and around the animal, four heads, a number of legs, and the bodies of other camels are drawn but not coloured. It is possible that the original painting included only the larger coloured camel, and that the group has been drawn later. The painting is slightly damaged. Some pigment is missing.

‘It is a wonderful animal, which is sometimes regarded as less valuable by people because [they are too] fussy when they examine it. [The camel] is a large, very obedient animal and carries heavy burdens. [People] make it kneel down and lead it with a halter. [...] On its back are two humps where people can sit and carry food, drinks, clothes, covers, pillows, blankets and cushions. [...]

[The camel] proceeds with all this stuff [on its back]. [. . .] It can go without drinking and eating for days.'

[London fol. 105r: 3–11 and 14–15; Munich fol. 171r: 23–6; Cairo II: 198, 5–23]

Cat. 260

Cow (*baqar*)

Bos taurus, Fam. Bovidae, Ord. Artiodactyla

Fol. 105v, right side of lines 6–13; 75×113 mm

A pale-purple cow, seen in left profile, stands on a grassy foreground. Its gold horns are curved forward and its right foreleg is raised. It has a prominent hump on its back and wears a small bell around its neck. The painting is slightly damaged.

'This is a strong animal, one of God's most useful creatures. It is not provided with strong weapons like the wild beasts because it is in the custody of man who is its master and drives its enemies away.⁴⁵² Since man's need of [the Cow] is pressing, [this animal] is not provided with weapons which could hurt and overcome him. The [young] Cows know that they will have a weapon above their heads since [they move their heads] as if using their horns: one can notice it when the young calves push their head forward before their horns are grown: this is because it is their nature and they do it by instinct.'
[London fol. 105v: 4–13; Munich fol. 172r: 4–9; Cairo II: 199, 38 and 200, 1–13]

Cat. 261 (Fig. 5.23)

Goat (*maʿz*)

Capra hircus, Fam. Bovidae, Ord. Artiodactyla

Fol. 106r, left side of lines 16–23; 75×117 mm

A white goat, shown in left profile, stands on a grassy foreground. Its right foreleg is raised. It has long grey hair and long, slightly curving gold horns. The painting is in good condition.

'It is a stupid, foolish animal, and for this reason when someone wants to blame a person, he says: "You foolish goat!",⁴⁵³ which means that [that person] is very stupid and [also] stinks. [The goat] is preferred to sheep because it has plenty of milk and a thicker skin. [. . .] It is a strange thing that God made sheep's skin delicate with plenty of wool, and goat's skin thick with thin hair.'

[London fol. 106r: 15–17 and 19–21; Munich fol. 174r: 26 and fol. 174v: 1–3; Cairo II: 206, 32–9 and 207, 1–5]

Cat. 262

Gazelle (*zabī*)

Gazella, Fam. Bovidae, Ord. Artiodactyla⁴⁵⁴

Fol. 106v, right side of lines 20–5; 57×97 mm

A pale-reddish-brown gazelle, painted in left profile, runs on a grassy foreground. It has a short tail and thin lyre-shaped black



Col. 55 Cow (baqar), fol. 105v, 75×113 mm; Gazelle (zabi), fol. 106v, 57×97 mm; Lion (asad), fol. 108v, 87×130 mm.

horns. It wears a collar around its neck. The painting is in good condition.

'This is the shyest of animals. It is intelligent: it is said that when [the Gazelle] wants to go to its den, it does so backwards and if it spots some [enemy] it does not enter it. It behaves oddly when it drinks bitter sea-water and then eats colocynth: the water flows from the corners of its mouth and turns sweet. The Musk Gazelle is like the Gazelle of our country except for two tusks hooking outwards from its mouth like the elephant.'⁴⁵⁵

[London fol. 106v: 19–24; Munich fol. 175r: 2–6; Cairo II: 209, 17–35]

Cat. 263 (Fig. 3.36)

Steinbock (*ayyil*)⁴⁵⁶

*Fam. Cervidae, Ord. Artiodactyla*⁴⁵⁷

Fol. 107r, left side of lines 7–12; 58×97 mm

Against a red background, a pale-brown stag, pictured in left profile, grazes on plants in the foreground. Its neck and head are stretched forward to reach the plants, and it has large branching horns. The painting is in good condition. Some pigment is missing.

'It is the mountain goat, and like the wild cow it eats vipers and other [animals]. It throws itself down from the top of rocks. When [the Steinbock] is frightened by hunters and is at least one thousand cubits away [from them], it stands still on its horns and submits. Its age corresponds to the number of junctions of its horns. [. . .] It is said that the Steinbock is friendly with fish: it goes to the seaside to meet the fish, and fish climb up to the shore to meet the Steinbock. Hunters know this [fact], so when fishermen want to catch fish they wear a Steinbock's skin to make the fish surface [from the water].'

[London fol. 107r: 6–13; Munich fol. 175r: 18–21; Cairo II: 210, 38 and 211, 1–18]

Wild Beasts

Cat. 264 (Fig. 3.37)

Jackal (*ibn āwā*)

*Canis aureus, Fam. Canidae, Ord. Carnivora*⁴⁵⁸

Fol. 107v, left side of lines 9–15; 66×105 mm

Two pale-brown jackals are on a grassy foreground against a red background. One, pictured frontally, sits back on its haunches so that its underside is visible. The other sits in the same position but is viewed in left profile. A tree curves above the two animals. The illustration has a gold frame and its upper right corner is indented. The painting is in good condition. Some pigment is missing.

'It is called *shaghāl* in Persian. This animal destroys vines and

date palms. When [the Jackal] spots a hen it aims straight to [try to] eat it, and if the hen is not [safe] on a roof or a tree, [the Jackal always manages] to catch it. A strange thing is that when a hen sees a dog, a fox, a cat or some other animal aiming at it, it behaves [as if it was] paralysed. When a Jackal aims at it, the hen does not move until [the Jackal] comes very close, then [suddenly] it throws itself towards [the Jackal, giving itself up]: its submission to the Jackal is somewhat similar to that of the sheep to the wolf.'

[London fol. 107v: 8–16; Munich fol. 176r: 1–7; Cairo II: 213, 21–36]

Cat. 265 (Fig. 3.38)

Weasel (*ibn 'irs*)

Mustela mustela, Fam. *Mustelidae*, Ord. *Carnivora*⁴⁵⁹

Fol. 107v, right side of lines 20–5; 56×100 mm

Two small furry animals resembling rats are shown within a grassy landscape. One of the animals climbs a low trunk, the other walks on the ground and both are seen in left profile. They have long tails and wear collars. The illustration is framed in gold. The painting is damaged. A patch fills the sky on the upper left corner. The rest is original.

'This is a small, long animal which is called *rasū* in Persian. It is an enemy of mice and goes back and forth to their dens. [The Weasel] loves jewels and ornaments and steals them. It shows enmity to the crocodile, which always keeps its mouth open, [so] the Weasel enters its abdomen and eats its bowels, ripping them apart, and then it leaves.⁴⁶⁰ It also shows enmity to the snake: when [the Weasel] intends to kill a snake, it eats some wild rue because its smell weakens snakes and so it can kill them. If the Weasel is sick, it eats hens' eggs and is relieved of its sickness.'

[London fol. 107v: 21–5 and fol. 108r: 1–2; Munich fol. 176r: 13–21; Cairo II: 214, 16–32]

Cat. 266 (Fig. 5.24)

Hare, Rabbit (*arnab*)

Lepus, Fam. *Leporidae*, Ord. *Lagomorpha*⁴⁶¹

Fol. 108r, left side of lines 10–15; 59×98 mm

Two purple hares sit in a grassy foreground. A tall plant is on the right. One of the hares sits on its hind legs, its forelegs atop a low trunk. The second sits in front of the other animal, its right foreleg raised and its head turned backwards. Both animals have long ears. The painting is in good condition.

'This is an animal that produces many offspring and is called *khar-gosh*⁴⁶² in Persian. It is said that it is one year male, the other a female alternately, and it menstruates like a woman. Its forelegs are shorter than its hind legs. When [the Hare] sleeps it [keeps] its eyes open, and when it is sick it eats green reeds to recover.'

[London fol. 108r: 9–13; Munich fol. 176v: 3–5; Cairo II: 215, 29–37]

Cat. 267 (Col. 5.5)**Lion** (*asad*)*Leo leo*, Fam. *Felidae*, Ord. *Carnivora*

Fol. 108v, right side of lines 2–10; 87×130 mm

A pale-pink lion pictured in left profile walks on a grassy foreground. It has a large head, a curly golden mane, and its long tail curves around its left hind leg. The painting is in good condition.

‘[The Lion] is the strongest among the wild beasts, the most courageous and awe-inspiring, whose appearance is most formidable. It fears no animal, and no animal challenges it, [fearing] the strength of its blow. It is said that [the Lion] does not devour any prey hunted by other [animals], and after it hunts its prey it eats only its heart, leaving the rest to the other [animals]. It loves songs, the chant of birds and of young men. When it notices some place lit at night it goes there and stops in its vicinity.’

[London fol. 108r: 23–5 and fol. 108v: 1; Munich fol. 177r: 1–5; Cairo II: 217, 2–14]

Cat. 268**Unicorn** (*ḥarīsh*)⁴⁶³

Fol. 109r, left side of lines 2–6; 47×82 mm

A grey gazelle-like animal sits on a grassy foreground. It has a long, straight and sharp golden horn on its head, which is turned backwards. The painting is in good condition.

‘This animal is about the size of a kid. It can run fast. On its head a single horn is visible, like that of the rhinoceros. Most of its racing is on two legs, and nothing can catch it because of its speed. It is found in the thickets of Sakhsīn⁴⁶⁴ and Bulghār.’

[London fol. 109r: 1–4; Munich fol. 178v: 3–7; Cairo II: 223, 22–8]



Col. 56 Unicorn (*ḥarīsh*), fol. 109r, 47×82 mm.

Cat. 269 (Fig. 2.21)**Wild Boar** (*khinzīr*)*Sus Scrofa*, Gen. *Sus*, Fam. *Suidae*, Ord. *Artiodactyla*

Fol. 109r, left side of lines 9–14; 55×84 mm

A dark brown boar, seen in left profile, stands on a grassy foreground.

Two long and sharp gold tusks protrude from its mouth. The painting is in good condition.

'This animal has an ugly shape and disgusting appearance. It is provided with two canine teeth, like an elephant, which it uses to attack. Its head is similar to that of the buffalo, and it has cloven hoofs like a sheep. When excited, the Wild Boar shows great animation towards the female. [. . .] The peculiarities of its excitement are a bowing of its head and a change in the sound [it makes].'

[London fol. 109r: 8–10 and 12–13; Munich fol. 178v: 11–13; Cairo II: 223, 38 and 224, 1–11]

Cat. 270

Bear (*dubb*)

Gen. Ursus, Fam. Ursidae, Ord. Carnivora

Fol. 109v, left side of lines 6–12; 65×95 mm

A small, fat pale-brown bear, shown in left profile, climbs a slope on a grassy foreground. Its mouth is slightly open, and it wears a collar around its neck. The painting is in good condition.

'This is a fat animal that loves solitude. When winter comes it gets into the cave it occupies and does not come out again until the weather is mild. When it is hungry [in winter, the Bear] sucks its fore- and hind legs: in this way it overcomes its hunger. It leaves its cave in the spring, fatter [*sic*] than before. [The Bear] quarrels with the Cow: when the Cow charges, [the Bear] throws it on its back and grabs the Cow's horns with its forepaws, holding them tightly until [the Cow] is overcome. At the time of delivery, [the she-Bear] faces [the stars] of the Lesser Bear to facilitate her delivery. When the cubs are born, the [she]-Bear moves them to different places for fear of ants because when bears are born they are like [bare] pieces of meat [which the ants are attracted to]. [. . .] The young bears suck the hyaena's breast, and for this reason the Arabs say "More stupid than a she-bear" [because she lets them suck from another animal's breast]. The Bear does not fear any animal except the lion.'



Col. 57 Bear (*dubb*), fol. 109v, 65×95 mm.

[London fol. 109v: 5–14; Munich fol. 179r: 13–18 and fol. 179v: 1–4; Cairo II: 226, 5–28]

Cat. 271 (Fig. 4.15)

Common Marten (*dalaq*)

Martes foina, Fam. Mustelidae, Ord. Carnivora

Fol. 110r, right side of lines 2–7; 56×77 mm

A cat-like animal, seen in left profile, walks up a slope on a grassy foreground. It has piebald black and white fur, long tail and ears, and wears a collar. The painting is slightly damaged. Some pigment is missing.

‘This is a wild animal resembling a wild Cat. It never becomes tame. [The Marten] is an enemy of pigeons: when it enters a pigeon tower it does not leave a single [bird alive]. It is said that snakes are torn apart by the Marten’s call and this is the reason why the majority of [Martens] are found in Egypt where there are many snakes. It is also said that if one ties around the neck of a Marten a piece of wood with strong, twisted thread and then places [the animal] near a sparrow’s house, [the Marten] gets into it and grabs the sparrows and their chicks [but] leaves without killing them.’

[London fol. 110r: 1–6; Munich fol. 179v: 16–24; Cairo II: 227, 27–37 and 228, 1–4]

Cat. 272

Wolf (*dhi’b*)

Canis lupus, Fam. Canidae, Ord. Carnivora

Fol. 110r, left side of lines 13–17; 50×86 mm

A furry pale-brown wolf in left profile sits on its hind legs on a grassy foreground. Its forelegs are on a slope, its tail curls behind its left thigh, and it wears a collar. The painting is slightly damaged. Some pigment is missing.

‘This is a wicked animal that performs incursions, fights and is of great deceit. [...] It never fails an attack. When they are in a group, [the Wolves] never leave any member isolated if it cannot take care of itself. According to their nature, when they sleep they face each



Col. 58 Wolf (*dhi’b*), fol. 110r, 50×86 mm.

other in order to guard one another; from this comes the saying "to sleep with one eye".'

[London fol. 110r: 12–16; Munich fol. 179v: 26–7 and fol. 180r: 1–3; Cairo II: 228, 20–9]

Cat. 273 (Fig. 1.1)

The Animal Called 'Sinād'⁴⁶⁵

Fol. 110v, left side of lines 18–25; 73×146 mm

A grey elephant-like animal is shown in left profile grazing on a grassy foreground. The head of a small animal with a trunk protrudes under its tail. The animal wears a collar around its neck and anklets on its legs. The painting is slightly damaged. The head and neck are damaged; the rest is in good condition.

'This animal has the same shape as an elephant, only smaller, and is larger than a bull. It is said that its offspring's heads protrude from its womb and graze [from that position] until they become strong [enough to leave their pouch]. When they are grown they leave [the pouch] and run away from their mother for fear of being devoured.'⁴⁶⁶
[London fol. 110v: 17–25; Munich fol. 180v: 6–8; Cairo II: 231, 20–6]

Cat. 274 (Fig. 4.16)

Hyaena (*dabu'*)

Hyaena hyaena, Fam. *Hyaenidae*, Ord. *Carnivora*⁴⁶⁷

Fol. 111r, right side of lines 2–8; 67×75 mm

A pale-brown wolf-like animal, shown in left profile, walks on a grassy slope. The painting is in good condition.

'It is called *kaftār* in Persian. This is an animal with a slow gait and ugly appearance. It digs up graves and pulls out corpses. [. . .] It is said that the Hyaena is alternately one year male, the other female like the Hare.⁴⁶⁸ There is great enmity between the Hyaena and the Dog: it is said that if the shadow of a Hyaena falls on a dog, the latter becomes paralysed and will not move until the Hyaena comes and devours it. When [the Hyaena] is sick it eats dog's meat to be cured. Hyaenas and wolves are friends: a cross is born from them, which is called *sim'*;⁴⁶⁹ it is an animal with a strange aspect between a Hyaena and a wolf; if the father is a wolf, the cross is called '*asbār*. Among the Arabs there is a people named "Ḍabu'yūn" [from *ḏabu'* = Hyaena].'

[London fol. 111r: 1–2 and 6–11; Munich fol. 181v: 11–12 and fol. 182r: 1–5; Cairo II: 234, 37–8 and 235, 1–22]

Cat. 275 (Fig. 5.25)

Caracal (*'anaq*)

Lynx caracal, Fam. *Felidae*, Ord. *Carnivora*⁴⁷⁰

Fol. 111v, left side of lines 6–10; 46×97 mm

A dark-brown feline, shown in left profile, walks on a grassy foreground. It has a straight short tail and long pointed ears. The drawing

of a goat, in red ink, is also visible against the blank paper. The painting is in good condition.

'It is called *siyāh-gosh*⁴⁷¹ in Persian. This animal has a beautiful figure: it is bigger than a Dog, of the same colour as the red Camel [but] its ears are black. It hunts like a Cheetah, which wipes its traces out as it goes. [The Caracal] also hunts cranes: when a crane takes flight it performs a high jump in the air and grabs [the bird] with its paws.'

[London fol. 111v: 6–12; Munich fol. 182v: 1–7; Cairo II: 237, 20–9]⁴⁷²

Cat. 276 (Fig. 2.14)

Cheetah (*fahd*)

Acinonyx jubatus, Fam. *Felidae*, Ord. *Carnivora*

Fol. 111v, left side of lines 15–23; 85×104 mm

A cheetah, pictured in left profile, stands on a grassy foreground. Its right foreleg is raised, and it has a long tail and white fur with black spots. The painting is in good condition.

'This animal becomes infuriated easily; it is of small size and able to perform long jumps. It sleeps long and is friendly [with the other animals] except with the leopard. Wild beasts are fond of the Cheetah's smell and follow it in order to eat what is left of its prey. Al-Jāhīz says that the Cheetah knows it will be hunted when it fattens [because] its movements become heavy and its smell is inviting to wild beasts. It fears lions and leopards, and therefore it hides until it loses weight.'

[London fol. 111v: 14–24; Munich fol. 182v: 18–21; Cairo II: 237, 38 and 238, 1–15]

Cat. 277⁴⁷³ (Fig. 3.26)

Rhinoceros (*karkadann*)

Rhinoceros unicornis, Fam. *Rhinocerotidae*, Ord. *Perissodactyla*⁴⁷⁴

Fol. 112r, right side of lines 12–14; 123×135 mm

A brown ox-like animal, seen in left profile, stands on a grassy foreground. It has a long straight white horn that protrudes from its head. It wears a collar and a black strap or leash, which is tied around its mouth and neck. The painting is in good condition.

'The body of this animal is elephant-like, [but] its nature is more like that of a bull. It is larger in size [than the bull]. It is provided with hoofs and a horn. It gets angry easily, runs fast and attacks accurately. All animals from India fear [it]. There is a sharp horn on its head, which thickens towards the head and bends towards its face convexly and concavely towards its back. It is the smallest among the animals which live [at least] seven hundred years. It gets excited [for the female] when it is fifty years old and its pregnancy lasts three years. It is said that all animals run away from the area where a Rhinoceros arrives until at least one hundred parasangs separate them from the Rhinoceros, from the [great] fear they have

of it. When [the Rhinoceros] spots an Elephant it goes behind [it] and thrusts its horn into its abdomen, then stands on two legs and raises the Elephant until it is gored by its horn. [However], when it tries to free itself [from the elephant] it is unable to do so and as a result both Rhinoceros and Elephant die. It is said that no weapon works against the Rhinoceros and no wild animals or beasts can challenge it. [The Rhinoceros] loves the Collared Turtle Dove and stops under the trees where its nests are found, enjoying the dove's chant. The Turtle Dove [likes to] stand atop its horn and [the Rhinoceros dares] not move its head lest it flies away.'

[London fol. 112r: 11-25 and fol. 112v: 1-6; Munich fol. 184r: 8-16; Cairo II: 242, 38 and 243, 1-35]

Cat. 278 (Fig. 3.27)

Dog (*kalb*)

Canis familiaris, Fam. Canidae, Ord. Carnivora

Fol. 113r, right side of lines 2-8; 56×78 mm

A piebald black and white dog, shown in left profile, stands on a grassy foreground. It wears a red cover and bites a long bone on the ground. The painting is in good condition. Some pigment is missing.

'This animal is a strong walker, is faithful, always hungry, watchful, and is very useful for its tenacity and protection as it drives thieves away. [. . .] Among its oddities, it is also said that when [the Dog] goes hunting during winter and the ground is covered with ice so that hunters do not know where the game may be, the Dog continues to go right and left smelling until it finds the game with the aid of its nose.'

[London fol. 113r: 1-2 and 9-11; Munich fol. 184v: 13-15 and 19-24; Cairo II: 245, 24-7 and 246, 1-8]

Cat. 279 (Fig. 4.17)

Leopard (*namr*)

Leo pardus, Fam. Felidae, Ord. Carnivora

Fol. 113v, left side of lines 17-25; 86×107 mm

A feline with white fur spotted in black, in left profile, walks on a grassy slope. It has a long raised tail and wears a collar. The painting is slightly damaged. The head is damaged; the rest is original.

'This is a very strong animal which performs high jumps. It is an enemy of all animals, which are unable to prevent its attacks. It also does not refrain from [attacking] soldiers [if it] takes them by surprise. [The Leopard's] fur is spotted and pleasantly coloured. [. . .] When its appetite has been satisfied, it sleeps for three days.'

[London fol. 113v: 20-4 and fol. 114r: 1; Munich fol. 185r: 25-7; Cairo II: 249, 2-8 and 11]⁴⁷⁵

Birds

Cat. 280

Bishop Bird or Finch [?] (*abū barāqish*)*Pyromelana franciscana* [?]⁴⁷⁶

Fol. 114v, left side of lines 13–17; 47×82 mm

A white wading bird with orange legs, shown in left profile, stands on a grassy foreground. Its long thin neck and its haloed head curve down towards the ground. The orange beak is open. The painting is slightly damaged.

'It is a bird with a beautiful voice, a long neck and long red legs. Its beak is of the same size as the Stork's beak. It is multi-coloured, red, yellow, green and blue. [...] A cloth named *abū qalamūn*⁴⁷⁷ inspired by the colours of this bird is brought from Rūm.'

[London fol. 114v: 13–15, 17; Munich fol. 186r: 15–21; Cairo II: 252, 10–14, 17–19]



Col. 59 Bishop Bird or Finch [?] (*abū barāqish*), fol. 114v, 47×82 mm;
Nightingale (*abū harūn*), fol. 114v, 65×86 mm.

Cat. 281

Nightingale (*abū harūn*)*Luscinia megarhynchos*, Fam. Turdidae, Ord. Passeriformes⁴⁷⁸

Fol. 114v, right side of lines 20–5; 65×86 mm

A small haloed white bird stands on a grassy foreground. It has open wings coloured in gold, red and blue, and a long black tail. The painting is in good condition.

'It sings from its throat beautiful melodies, which are more

moving than lamentations and outshine all other tunes. It keeps singing during the night until morning comes and the other birds join in for the pleasure of hearing its voice.'

[London fol. 114v: 18–22; Munich fol. 186r: 22–6; Cairo II: 252, 21–7]

Cat. 282 (Fig. 5.26)

Goose (*awazz*, *iwazz*)

Anser var.,⁴⁷⁹ Fam. Anatidae, Ord. Anseriformes⁴⁸⁰

Fol. 115r, right side of lines 2–7; 56×71 mm

A haloed pale-pink duck, seen in left profile, stands on a grassy foreground. Its neck is blue, the beak is orange. The section of the wing joining the body is painted in gold.⁴⁸¹ The painting is in good condition.

'This bird loves swimming. Its chicks run to the water and swim soon after they hatch from their egg. When the female sits on the eggs, she devotes her attention only to her own, differing in this from the hen. She lays nine to eleven eggs at a time.'

[London fol. 115r: 1–3; Munich fol. 186v: 1–2; Cairo II: 252, 30–5]

Cat. 283

Goshawk (*bāzī*)

Accipiter gentilis, Fam. Accipitridae, Ord. Accipitriformes⁴⁸²

Fol. 115r, left side of lines 13–18; 58×85 mm

A haloed bird of prey, seen in left profile, stands on a grassy foreground. It has a pale-greyish-blue body. The painting is in good condition.

'It is the proudest and the most impatient among the birds of prey. It is found in the land of the Turks. It is said that the Goshawk is only female and that the males belong to other species, such as the Kite and the Peregrine Falcon, and this is the reason why it is possible to see a variety of forms of the Goshawk.'

[London fol. 115r: 15–19; Munich fol. 186v: 14–15; Cairo II: 253, 24–30]



Col. 60 Goshawk (*bāzī*), Fol 115r, 58×85 mm.

Cat. 284

Sparrow Hawk (*bāshiq*)

Accipiter nisus, Fam. Accipitridae, Ord. Accipitriformes⁴⁸³

Fol. 115v, left side of lines 12–16; 46×92 mm



Col. 61 Sparrow Hawk (bashiq), fol. 115v, 46×92 mm; Parrot (babbaghā, babghā), fol. 115v, 79×79 mm.

A small pale-grey and white bird of prey, seen in left profile, stands on a grassy foreground. A wing is slightly raised. The painting is in good condition.

'This bird of prey has a beautiful appearance and a small body. It chases sparrows and other birds of similar size.'

[London fol. 115v: 11-13; Munich fol. 187r: 1-3; Cairo II: 255, 13-16]

Cat. 285

Parrot (babbaghā, babghā)
Psittacula, Fam. *Psittacidae*,
Ord. *Psittaciformes*⁴⁸⁴

Fol. 115v, right side of lines 18-25; 79×79 mm

The painting is entirely damaged. Only some grey and blue feathers and the orange beak and legs of a bird are visible.

'It is called *tūtī* in Persian. This bird has beautiful colours and form. Most [of them] are green, but also red, yellow and white. They have large beaks and a tongue by means of which they repeat the words uttered by humans when they hear them, but they do not understand their meaning.'

[London fol. 115v: 17-20; Munich fol. 187r: 6-8; Cairo II: 255, 20-7]

Cat. 286

Bulbul (bulbul)

Pycnonotus var., Fam. *Pycnonotidae*, Ord. *Passeriformes*⁴⁸⁵

Fol. 116r, left side of lines 4-7; 39×99 mm

A small pale-greyish-green bird stands on a grassy foreground in left profile. It has a tiny beak and a long tail. The painting is in good condition.

'It is called *hazār-dastān*⁴⁸⁶ in Persian. This bird is small and quick. It always sings and constantly changes its melodies. It lives in gardens. [. . .] It is said that it is in love with the rose.'



Col. 62 Bulbul (bulbul), fol. 116r, 39×99 mm.

[London fol. 116r: 3–8; Munich fol. 187r: 16–18; Cairo II: 256, 10–16]

Cat. 287 (Fig. 2.22)

Owl (*būm*)

Bubo, *Asio*, *Otus* var., *Fam. Strigidae*; *Tyto* var., *Fam. Tytonidae*, *Ord. Strigiformes*⁴⁸⁷

Fol. 116r, right side of lines 12–22; 104×65 mm

Two pale-brown owls with long feathers extending from their eyes. One, seen in left profile, stands on a grassy foreground, one leg raised. The other flies above the first. The painting is in good condition.

‘It is a well-known bird which does not appear during the day because of its poor sight. It likes solitude, and people regard it as an evil portent. Snakes and vipers flee from its call. It hunts weak cats and shows enmity towards the crow. It is submissive during the day but no bird can match it during the night.’

[London fol. 116r: 11–14; Munich fol. 187r: 25–7 and fol. 187v: 1; Cairo II: 256, 26–34]

Cat. 288 (Fig. 5.27)

Pheasant (*tadruj*)

Phasianus colchicus, *Fam. Phasianidae*, *Ord. Galliformes*⁴⁸⁸

Fol. 116v, right side of lines 7–12; 55×84 mm

Two pheasants, shown in right profile, stand on two low trunks within a grassy landscape looking at each other. The body of one of the birds is reddish-brown; the other is blue. They have long purple tails. Two other different birds are drawn, in red ink, against the blank background. The painting is in good condition.

‘This bird is called *tadharj* in Persian. It warbles in gardens with pleasant melodies. It grows fat when the air is pure and gusts of wind come from the north, but it becomes skinny when the air is turbulent and strong winds blow from the south. [...] When an earthquake is imminent pheasants gather and start shrieking one hour before it occurs.’

[London fol. 116v: 6–9 and 11–12; Munich fol. 187v: 16–22; Cairo II: 257, 38 and 258, 1–4 and 8–11]⁴⁸⁹

Cat. 289

Houbara Bustard (*hubārā*)

Chlamydotis undulata, *Fam. Otididae*, *Ord. Gruiformes*⁴⁹⁰

Fol. 116v, left side of lines 19–24; 50×80 mm

A haloed white and pale-grey wading bird, seen in left profile, stands on a grassy foreground. It has a long beak and a tuft of feathers on its head. The painting is in good condition. Some pigment is missing.

‘It is called *jarz* [or *jurz*] in Persian. It is said that it is among the most stupid of birds because it looks after other birds’ eggs and abandons its own.’

[London fol. 116v: 18–20; Munich fol. 188r: 7–8; Cairo II: 258, 28–32]



Col. 63 Houbara Bustard (hubārā), fol. 116v, 50×80 mm.

Cat. 290

Kite (ḥidā'a)

Milvus var., Fam. Accipitridae, Ord. Accipitriformes⁴⁹¹

Fol. 117r, right side of lines 6–11; 52×81 mm

A pale-brown bird of prey, shown in left profile, stands on a wooden branch and bends to bite one end of it. The painting is in good condition.

'This bird is called *zaghan* in Persian. It is a cowardly bird which is overpowered by the majority of birds. It is said that it is alternately one year male and one year female and that the crow steals its eggs and places its own in [the Kite's] nest. When the chick is born the male Kite is amazed by its appearance so it starts shrieking and beats the female until she dies.'

[London fol. 117r: 5–10; Munich fol. 188r: 21–2; Cairo II: 259, 19–29]



Col. 64 Kite (ḥidā'a), fol. 117r, 52×81 mm.

Cat. 291

Pigeon (ḥamām)

Columba var., Fam. Columbidae, Ord. Columbiformes⁴⁹²

Fol. 117r, left side of lines 17–21; 50×80 mm



Col. 65 Pigeon (ḥamām), fol. 117r, 50×80 mm.

Two greyish-blue pigeons, pictured in left profile, stand on a grassy foreground. They have orange beaks and legs. Their wings are open. The painting is in good condition.

‘It is a well-known bird which is able to return to its cote from long distances. It is the most intelligent of birds: when it is sent from a distant place it rises in the air and flies up in circles (just as one climbs a minaret) until it spots something familiar in the distance, and suddenly descends and points straight in the direction of that place.’

[London fol. 117r: 16–21; Munich fol. 188v: 2–5; Cairo II: 260, 8–18]

Cat. 292 (Fig. 4.18)

Swallow (*khuttāf*)

Hirundo rustica, Fam. *Hirundinidae*, Ord. *Passeriformes*⁴⁹³

Fol. 117v, left side of lines 20–5; 61×77 mm

Two black swallows in flight against a blank background. They have very long tails and wings. The painting is in good condition. Some pigment is missing.

‘This bird keeps moving from the cold or hot weather to the temperate following the spring season. When it knows that summer is approaching, it takes its chicks and leads them to another nest in a colder place and does not allow them to return to the previous one. It builds its nest with clay mixed with hair, arranged side by side.’

[London fol. 117v: 21–5; Munich fol. 189r: 3–5; Cairo II: 262, 38 and 263, 1–8]

Cat. 293 (Fig. 5.28)

Bat (*khuffāsh*)

Many families, Ord. *Chiroptera* of the Mammals⁴⁹⁴

Fol. 118r, right side of lines 11–15; 48×75 mm

A winged pale-brown bat in flight against a grey background. Its open wings cover the whole body, so that only its mouse-like head is visible. The painting is in good condition. Some pigment is missing.

‘It is a well-known flying animal which is short-sighted and

protects [itself] from the rays of the sun. It appears only at twilight and looks like a rat with thin skinny wings. It has teeth and the breasts of the female are like the breasts of a rat, the newborn bats actually sucking from them.'

[London fol. 118r: 10–12; Munich fol. 189r: 15–19; Cairo II: 263, 38 and 264, 1–6]

Cat. 294

Francolin (*durrāj*)

Francolinus, Fam. Phasianidae, Ord. Galliformes⁴⁹⁵

Fol. 118v, left side of lines 1–8; 76×82 mm

Two plump quail-like birds, seen in left profile, stand on a grassy foreground. Their bodies are dark pink spotted in black. The painting is in good condition.

'It is a blessed bird. It produces many chicks, has a curved back and is the messenger of spring. [. . .] It is in good health when the air is pure and the northern gales blow, but it gets sick when exposed to strong southern winds.'

[London fol. 118r: 24–5 and fol. 118v: 1–3; Munich fol. 189v: 3–7; Cairo II: 265, 5–7, 14–17]



Col. 66 *Francolin* (*durrāj*), fol. 118v, 76×82 mm.

Cat. 295 (Fig. 5.29)

Rooster (*dīk*)

Gallus var., Fam. Phasianidae, Ord. Galliformes

Fol. 118v, right side of lines 11–19; 84×77 mm

A multi-coloured rooster, in left profile, stands on a grassy foreground. The main colours of its feathers are red, black and gold. It has a long tail with feathers floating in the air. The painting is in good condition. Some pigment is missing.

'It is the bird with the greatest courage and passion. It is amazing because it is the messenger of the rising sun, being aware of the nocturnal hours by the inspiration of God, whether the night is nine or fifteen hours long. It has been said that he who wakes in the morning

as soon as the Rooster crows will be completely freed from the weight of sleep [for the whole day]. The Lion flees from the white Rooster.’ [London fol. 118v: 10–15; Munich fol. 189v: 12–17; Cairo II: 265, 29–37 and 266, 1–2]

Cat. 296

Hen (*dajāja*)

Gallus var., Fam. Phasianidae, Ord. Galliformes⁴⁹⁶

Fol. 119r, left side of lines 12–17; 58×87 mm

Two pink and black fowls, shown in left profile, stand on a grassy foreground. Their bodies are spotted in black and white. The painting is in good condition.

‘Among the oddities of the Hen is that when it shrieks and quarrels like a Rooster, a spur grows [on its legs]. [. . .] It is said that it is unable to lay eggs when it is too fat and that the eggs rot if it hears the sound of thunder while hatching.’

[London fol. 119r: 11–13 and 18–19; Munich fol. 190r: 9–12; Cairo II: 267, 29–33 and 268, 6–9]



Col. 67 Hen (*dajāja*), fol. 119r, 58×87 mm.

Cat. 297

Egyptian Vulture (*rakhama*)

Neophron percnopterus, Fam. Accipitridae, Ord. Accipitriformes⁴⁹⁷

Fol. 119v, right side of lines 6–13; 76×78 mm

A large pale-grey goose-like bird, seen in left profile, stands on a grassy foreground. Its long thin beak is orange. The body of the bird is damaged.

‘This bird is similar to the Vulture [*nasr*]. It lays its eggs on the towering edges of mountains to make them inaccessible, and the saying “rarer than the eggs of the vulture” is often heard. When it must lay an egg it goes to India and collects a stone called *abū tāffyūn* [?],⁴⁹⁸ which is [as] round [as a pearl] and rattles when shaken; the Egyptian Vulture places this stone under the egg [so that it helps hatching].’



Col. 68 Egyptian Vulture (rakhama), fol. 119v, 76×78 mm.

[London fol. 119v: 5–9; Munich fol. 190r: 26–7 and fol. 190v: 1–2; Cairo II: 269, 12–24]

Cat. 298

Rook (zāgh)

Corvus corone, Fam. *Corvidae*, Ord. *Passeriformes*⁴⁹⁹

Fol. 119v, left side of lines 18–24; 66×94 mm

A crow-like black bird, pictured in left profile, stands on a grassy foreground. One leg is raised. It has a long curved gold beak. Its wing is defined by a gold roundel in the middle of its body. The painting is in good condition. Some pigment is missing.

‘It is a big black bird and it is said that it can live a thousand years. Al-Jāhiz says that it is known that this bird rejects its chicks, which are adopted by the Raven.’

[London fol. 119v: 17–19; Munich fol. 190v: 11–12; Cairo II: 270, 5–10]



Col. 69 Rook (zāgh), fol. 119v, 66×94 mm.

Cat. 299**Starling** (*zurzūr*)

Sturnus vulgaris, Fam. *Sturnidae*, Ord. *Passeriformes*⁵⁰⁰

Fol. 120r, right side of lines 9–14; 55×80 mm

A small crow-like black bird spotted in white, seen in left profile, stands on a grassy foreground. Its long thin beak is slightly open, and it has a gold roundel in the middle of its body. The painting is in good condition.

'It is called *sār* in Persian. It follows the spring and takes advantage of the winds coming from India. These birds get lost above the sea, fall into the water and return dead to the seashore, brought by the waves; the people living on the shores collect and roast them.'

[London fol. 120r: 8–11; Munich fol. 190v: 27 and fol. 191r: 1–2; Cairo II: 271, 10–17]



Col. 70 Starling (*zurzūr*), fol. 120r, 55×80 mm.

Cat. 300 (Fig. 2.8)**Goshawk** (*zum māj*)

Accipiter gentilis, Fam. *Accipitridae*, Ord. *Accipitriformes*⁵⁰¹

Fol. 120r, left side of lines 18–25; 44×85 mm (in the same frame as cat. 301)

A large haloed bird of prey, pictured in left profile, stands on a grassy foreground in the lower part of the framed space. Its plumage is pale-brown. The painting is damaged.

'It is called *z.m.k* [?] in Persian.'

[London fol. 120r: 17; Munich fol. 191r: 8; Cairo II: 271, 33–7]

Cat. 301 (Fig. 2.8)**Quail** (*summānā*)

Coturnix coturnix, Fam. *Phasianidae*, Ord. *Galliformes*⁵⁰³

Fol. 120r, left side of lines 18–25; 32×85 mm (in the same frame as cat. 300)

A small pale-red quail, seen in left profile, stands on a grassy foreground in the upper part of the framed space. The painting is in good condition.

'It is called *samāna* in Persian. It is the bird which descended to the Banū Isrā'īl in the desert. Among its oddities is that it keeps silent in the winter and starts singing in the spring. It eats aconite which is extremely poisonous.'

[London fol. 120r: 19–25; Munich fol. 191r: 11–16; Cairo II: 271, 38–9 and 272, 1–4]

Cat. 302 (Fig. 2.15)

Gerfalcon (*sunqur*)

Falco rusticolus, Fam. Falconidae, Ord. Accipitriformes⁵⁰⁴

Fol. 120v, right side of lines 2–6; 47×73 mm

A large bird of prey, pictured in left profile, stands on a grassy foreground. The painting is in good condition.

'It is a bird of prey whose body is similar to that of the Peregrine Falcon except for its very thick legs. It lives only in cold areas and is found in the land of the Turks. Among its wonders [is that] when it is dispatched to hunt it rises above [its prey] and flies around it in circles, forcing it to fall trapped in the spirals [drawn in the air].'

[London fol. 120v: 1–5; Munich fol. 191r: 16–19; Cairo II: 272, 5–15]

Cat. 303 (Fig. 2.15)

Peregrine Falcon (*shāhīn*)

Falco Peregrinus, Fam. Falconidae, Ord. Accipitriformes⁵⁰⁵

Fol. 120v, left side of lines 8–13; 58×95 mm

A bird of prey, seen in left profile, stands on a grassy foreground. The painting is in good condition.

'It is a bird of prey with a strong enmity for the Pigeon. When it sees a Pigeon, it seizes it just as the wolf snatches a sheep. When it grasps a tortoise it is unable to break its shell with its bill, so it transports its prey high in the air and lets it fall on the rocks in order to crush its shell and be able to eat it.'

[London fol. 120v: 8–13; Munich fol. 191r: 26–7 and fol. 191v: 1–3; Cairo II: 272, 22–34]

Cat. 304 (Fig. 2.15)

Turtle Dove (*shifnīn*)

Streptopelia turtur, Fam. Columbidae, Ord. Columbiformes⁵⁰⁶

Fol. 120v, left side of lines 15–18; 40×95 mm

Two small pale-orange birds, shown in left profile, stand on a grassy foreground. Their chest, belly and neck are white. They have slightly opened thin beaks. The painting is in good condition.

'It is a well-known bird called *tīrak* [?] ⁵⁰⁷ in Persian. It is reported that it couples only with one female and when she dies he remains single.'

[London fol. 120v: 14–16; Munich fol. 191v: 3–5; Cairo II: 272, 37–9]

Cat. 305 (Fig. 2.15)**Green Woodpecker** (*shaqrāq*)*Coriacias* var., Fam. *Coriaciidae*, Ord. *Passeriformes*⁵⁰⁸

Fol. 120v, right side of lines 21–4; 39×72 mm

A green bird, seen in left profile, stands on a grassy foreground. It has a large orange bill and a large head. The painting is heavily damaged and retouched. Parts of its head, body and tail are damaged.

'It is called *kāsgīna*⁵⁰⁹ in Persian. It is green with a red or sometimes a yellow bill. It is a bee-eater.'

[London fol. 120v: 21–2; Munich fol. 191v: 9–11; Cairo II: 273, 8–12]

Cat. 306**Golden Oriole** (*šāfir*)*Oriolus*, Fam. *Oriolidae*, Ord. *Passeriformes*⁵¹⁰

Fol. 121r, right side of lines 2–5; 56×103 mm

A small white bird hangs upside down by one leg from the branch of a slender tree. Its wings and beak are open. The tree dominates the painting. The illustration is in good condition.

'This bird does not sleep during the night, so when dusk comes it hangs upside down from a tree clutching a branch with its small claws, and it goes on singing [all night]. It is said that it is afraid that the sky will fall [on its head].'⁵¹¹

[London fol. 121r: 1–5; Munich fol. 191v: 15–18; Cairo II: 273, 20–7]

Cat. 307**Saker Falcon** (*šaqr*)*Falco cherrug*, Fam. *Falconidae*, Ord. *Accipitriformes*⁵¹²

Fol. 121r, right side of lines 7–12; 58×84 mm

A bird of prey, in left profile, stands on a grassy foreground. The area beneath the tufts of grass is coloured pale-brown to suggest soil. The painting is in good condition.

'It is a well-known bird of prey called *charch* in Persian. Its hunting is amazing in comparison with other birds of prey: when it is sent after prey, it descends on [the prey's] head and strikes its eyes with its wings, then goes away and suddenly returns doing the same thing until it manages to knock its victim down.'

[London fol. 121r: 6–11; Munich fol. 191v: 19–22; Cairo II: 273, 28–37]



Col. 71 Golden Oriole (*šāfir*), fol. 121r, 56×103 mm; Saker Falcon (*šaqr*), fol. 121r, 58×84 mm; Peacock (*tāwūs*), fol. 121r, 77×89 mm.

Cat. 308**Peacock** (ṭāwūs)

Pavo var., *Fam. Phasianidae*, *Ord. Galliformes*

Fol. 121r, left side of lines 15–22; 77×89 mm

A peacock, shown in left profile, stands on a grassy foreground. The painting is entirely damaged. Only the blue head is original; the rest is patched.

‘It is the most beautiful bird for the variety of the colours of its feathers. It is sometimes possible to see a golden “wheel” mixed with blue, green and many other colours. [...] It is said that the Peacock lives for twenty-five years, and every year in autumn it loses its feathers which grow again [in spring] when the leaves appear on the trees.’

[London fol. 121r: 14–17 and fol. 121v: 2–4; Munich fol. 192r: 2–4 and 9–11; Cairo II: 274, 6–13 and 31–6]

Cat. 309 (Fig. 2.9)**Grouse** (ṭayhūj)

Many genera, *Fam. Tetraonidae*, *Ord. Galliformes*⁵¹³

Fol. 121v, left side of lines 10–21; 75×100 mm (in the same frame as cat. 310)

A small quail-like bird with pale-red plumage, in left profile, stands on a grassy foreground in the upper part of the framed space. Its belly is black. The painting is in good condition.

‘It is [also] called ṭayhūj⁵¹⁴ in Persian.’

[London fol. 121v: 9; Munich fol. 192r: 19–20; Cairo II text missing]

Cat. 310 (Fig. 2.9)**Sparrow** (‘usfūr)

Passer var., *Fam. Passeridae*, *Ord. Passeriformes*⁵¹⁵

Fol. 121v, left side of lines 10–21; 40×100 mm (in the same frame as cat. 309)

A small pale-pink bird with black spots, in left profile, stands on a grassy foreground in the lower part of the framed space. Its beak is open. The painting is in good condition.

‘It is a well-known bird called “the bird of two kinds”: the kind called “sheep” among the birds because it collects grains and the kind called “lion” because it eats meat. The Sparrow belongs to both kinds because it collects grains but also hunts crickets and locusts and eats them.’

[London fol. 121v: 11–17; Munich fol. 192r: 21–5; Cairo II: 275, 17–25]

Cat. 311**Eagle** (‘uqāb)

Aquila var., *Fam. Accipitridae*, *Ord. Accipitriformes*⁵¹⁶

Fol. 122r, right side of lines 5–11; 65×80 mm

A large bird of prey, shown in left profile, stands on a grassy foreground. Its tail is longer than that of the birds of the same family previously described. The painting is in good condition.

'It is among the most obstinate birds of prey. It hunts birds and all species of small animals like Rabbit and Fox, and eats their livers because they are good for its health. [...] When it grows old and its sight is not as good as it used to be, it rises in the air and plunges into the water of a well which is known [only] to it, where its sight returns entirely normal.⁵¹⁷ It lives long and flies very long distances: it can hunt easily eating its prey in Iraq while living in Yemen or Arabia.'
[London fol. 122r: 4–6 and 13–15; Munich fol. 192v: 9–10 and 18–21; Cairo II: 276, 20–5 and 277, 6–12]



Col. 72 Eagle ('uqāb), fol. 122r, 65×80 mm.

Cat. 312⁵¹⁸

Magpie ('aq'aq)

Pica pica, Fam. Corvidae, Ord. Passeriformes⁵¹⁹

Fol. 122v, left side of lines 1–5; 54×90 mm

A black and white magpie, shown in left profile, stands on a grassy foreground. It has a long tail. The painting is slightly damaged. Much pigment is missing.

'It is a well-known treacherous bird: it steals valuable things, especially pieces of jewellery and gems, and deposits them in another



Col. 73 Magpie ('aq'aq), fol. 122v, 54×90 mm.

place. It builds its nest only in the shade or under a roof and when it lays its eggs it puts some leaves of the plane tree in its nest in order to prevent bats from destroying them [since bats hate the plane]. It is among the most intelligent of birds.'

[London fol. 122r: 24–5 and fol. 122v: 1–4; Munich fol. 193r: 4–6; Cairo II: 278, 10–20]

Cat. 313⁵²⁰

The Bird Called 'Anqā'⁵²¹

Fol. 122v, left side of lines 10–21; 108×138 mm

A large rooster with a grey body, in left profile, stands on a grassy foreground. One leg is raised. It has a long and large tail coloured in gold, dark green and pale-purple, which touches the ground, long floating multi-coloured feathers over its back and a gold crest. Two long gold feathers spring from near its eyes. The painting is slightly damaged. Parts of the neck, chest and floating feathers are damaged.

'It is the biggest and the most powerful bird. It is able to grab an elephant or a buffalo as easily as a kite seizes a rat. In ancient times it used to live among people until it kidnapped an illustrious bridegroom, so God sent the prophet Ḥanzala (peace be upon him),⁵²² who confined it to an island of the Ocean where no people lived but only animals like elephants, rhinoceroses, buffaloes, tigers, lions and birds of prey. The 'Anqā, however, does not hunt them because it must be obedient [to God], and chases only elephants and big fishes. When it flies, its feathers make the sound of a terrible gale, like the sound of a stormy wind through the leaves of a tree. Some merchants



Col. 74 The Bird Called 'Anqā', fol. 122v, 108×138 mm.

said that once their ship was wrecked and they found themselves in great danger on the sea, but the 'Anqā came and rescued them all. It is said too that this bird lives for one thousand seven hundred years and couples when it is five hundred years old. When it is the time to lay an egg, the female suffers much pain, so the male brings some salt water in its beak and helps her to lay the egg [giving her the water to drink]. It is the male that hatches [the egg] while the female goes hunting. The egg opens after one hundred and twenty-five years: if a female is born, the male arranges a fire and the mother sacrifices herself, letting the chick become its partner; if a male is born, the same thing happens to the adult male, which immolates itself.'

[London fol. 122v: 9–25 and fol. 123r: 1–8; Munich fol. 193r: 14–17 and fol. 193v: 1–9; Cairo II: 279, 1–36 and 280, 1–21]

Cat. 314⁵²³

Crow (*ghurāb*)

Corvus var., Fam. *Corvidae*, Ord. *Passeriformes*⁵²⁴

Fol. 123r, left side of lines 10–16; 58×103 mm

A large black and white crow, seen in left profile, stands on a grassy foreground. The painting is in good condition. Some pigment is missing.

'This bird likes to travel to distant places and is the first bird to fly before dawn. It buries its food and likes to copulate. It accompanies other animals in the desert, like Camels and Horses, and also humans. [...] It also likes to eat the flesh from the back of corpses. When the chick is born it looks white and without feathers, so the mother feeds it with flies until its feathers grow and it turns black.'

[London fol. 123r: 9–13 and 16–17; Munich fol. 193v: 11–13 and 15–19; Cairo II: 280, 25–33 and 281, 4–10]



Col. 75 Crow (*ghurāb*), fol. 123r, 58×103 mm.

Cat. 315 (Fig. 4.19)

Crane (*gharnīq*)

Ardea var., Fam. *Ardeidae*, Ord. *Ciconiiformes*⁵²⁵

Fol. 123v, left side of lines 2–9; 75×82 mm

Two large pale-grey wading birds, one depicted in left profile, the other seen from the back. The latter has open wings and an open beak. The painting is slightly damaged. The body of the second bird is partially damaged.

'It is a waterbird. The author of *The Logic*⁵²⁶ says that it is a migrant bird because it senses when the weather changes and returns to its country. It flies very high in the sky in order to avoid birds of prey, and when it has to descend it emits high cries to chase enemies away. When it sleeps it tucks its head under a wing to protect its eyes which are very important [for its ability to survive]. It sleeps standing on a single leg until it falls into a deep sleep. One of them in turn stays awake in order to watch over the others, and starts shrieking loudly as soon as danger gets close.'

[London fol. 123v: 2-12; Munich fol. 194r: 3-9; Cairo II: 282, 5-36]

Cat. 316 (Fig. 4.19)

Grebe or Diver Bird (*ghawwās*)

Podiceps var., Fam. *Podicipedidae*, Ord. *Podicipediformes*⁵²⁷

Fol. 123v, left side of lines 13-19; 67×82 mm

A duck-like brown and pink bird with a long neck, shown in left profile, stands on a grassy foreground. The painting is in good condition.

'It is called *māhī-khwār*⁵²⁸ in Persian. It is found on the river edges diving upside down into the water in search of fish until it captures one and re-emerges. [...] The story is told of someone who once saw a Crow repeatedly stealing from the beak of a Grebe the fish that it had just captured; in retaliation the Grebe managed to grasp the Crow's legs, drowned it and flew away.'

[London fol. 123v: 13-20; Munich fol. 194r: 13-21; Cairo II: 283, 1-21]

Cat. 317 (Fig. 4.19)

Collared Turtle Dove (*fākhita*)

Streptopelia decaocto, Fam. *Columbidae*, Ord. *Columbiformes*⁵²⁹

Fol. 123v, left side of lines 21-4; 38×82 mm

A small pale-purple bird, in left profile, stands on a grassy foreground. A small collar is around its neck. The painting is in good condition.

'It is a well-known bird which people respect. It is said that the snake flees when it hears its voice. The story is told that once a multitude of snakes infested a certain place; the people living there complained about it to the elders who ordered that a number of Collared Turtle Doves be brought to their land in order to drive the snakes away.'⁵³⁰

[London fol. 123v: 23-5; Munich fol. 194r: 22-7; Cairo II: 283, 27-35]

Cat. 318

Partridge (*qabj*)

Perdix perdix, Fam. *Phasianidae*, Ord. *Galliformes*⁵³¹

Fol. 124r, left side of lines 2–6; 46×88 mm

A plump pale-pink partridge with a blue chest spotted in white. It is shown in left profile and stands on a grassy foreground. The painting is in good condition.

'This bird is called *kabg* in Persian. It lives in the mountains. When it hunts, it hides its head in the snow believing that it is not seen by its victim, just as it cannot see its prey.'

[London fol. 124r: 1–3; Munich fol. 194v: 1–2; Cairo II: 283, 39 and 284, 1–3]

Cat. 319

Crested Lark (*qunbura*)

Galerida cristata, Fam. *Alaudidae*, Ord. *Passeriformes*⁵³²

Fol. 124r, left side of lines 14–19; 56×90 mm

Two small white birds with gold crests, seen in left profile, stand on two different grassy foregrounds. The painting is in good condition.

'It is called *jalūd*⁵³³ in Persian. It likes melodious sounds and sweet songs. It has a sort of crest on its head similar to the crest of a peacock.'

[London fol. 124r: 15–17; Munich fol. 194v: 14–15; Cairo II: 285, 7–11]

Cat. 320

Sandgrouse (*qatā*)

Pterocles var., Fam. *Pteroclididae*, Ord. *Pteroclidiformes*⁵³⁴

Fol. 124r, left side of lines 23–5; 29×92 mm

Two small grey birds, in left profile, stand on a grassy foreground. They have long thin black beaks and bifurcated tails. The painting is in good condition. Some pigment is missing.

'This bird is well-known and its singing is of good omen. The Sandgrouse cries out at the slightest alarm, hence the saying "more plainly revealing than the Sandgrouse". It lays its eggs in open ground and abandons them for a few days until it returns. It does not sleep during the night.'

[London fol. 124r: 23–5 and fol. 124v: 1; Munich fol. 194v: 23–7 and fol. 195r: 1; Cairo II: 285, 28–33]

Cat. 321 (Fig. 5.30)

Turtle Dove (*qumrī*)⁵³⁵

Streptopelia turtur, Fam. *Columbidae*, Ord. *Columbiformes*⁵³⁶



Col. 76 Partridge (*qabj*), fol. 124r, 46×88 mm; Crested Lark (*qunbura*), fol. 124r, 56×90 mm; Sandgrouse (*qatā*), fol. 124r, 29×92 mm.

Fol. 124v, left side of lines 6–10; 49×90 mm

Two very pale-pink birds resembling pigeons, in left profile, stand on two different grassy foregrounds. The painting is in good condition.

'This is a well-known bird which sings with a [beautiful] voice. It is mentioned that the female is faithful to the male after his death. An amazing thing is that the eggs of the Turtle Dove are often found under [the care of] a Collared Turtle Dove, and vice versa. [...] It is also recorded that reptiles are driven away by the voice of the Turtle Dove.'⁵³⁷

[London fol. 124v: 7–11; Munich fol. 195r: 6–12; Cairo II: 286, 20–6 and 287, 1–5]

Cat. 322 (Fig. 5.30)

The Phoenix (*qūqīs*)

Fol. 124v, left side of lines 12–15; 37×90 mm

Two white birds standing on a grassy foreground cross their beaks. A gold fire is lit between them. The bird on the left has open wings and seems to be excited. The painting is in good condition.

'This bird lives in India. The author of the *Tuhfat al-gharāib* writes that after two Phoenixes copulate they set some firewood in their nest, cross their beaks and rub them until [a spark] sets fire to the wood. So they burn and die, but as soon as it rains on their ashes, some sort of worms grow from the ash; pairs of wings appear on their bodies after some time, and finally the winged worms turn into an adult Phoenix again.'⁵³⁸

[London fol. 124v: 12–16; Munich fol. 195r: 12–17; Cairo II: 287, 6–17]

Cat. 323 (Fig. 5.30)

Crane (*kurkī*)

Grus grus, Fam. *Gruidae*, Ord. *Gruiformes*⁵³⁹

Fol. 124v, left side of lines 17–23; 75×90 mm

A large pale-grey crane or heron, in left profile, stands on a grassy foreground. It has a long open black beak and a tuft of feathers on its head. The painting is in good condition.

'This is a well-known bird called *kulank* in Persian. These birds fly close together in flocks led by one of them in turn. One of them also watches in turn over the others at night, and it is ready to cry out if an enemy approaches. [...] They sleep while standing on a single leg.'

[London fol. 124v: 17–23; Munich fol. 195r: 18–21; Cairo II: 287, 17–25 and 288, 1–3]

Cat. 324 (Fig. 2.4)

Curlew (*karawān*)

Numenius var., Fam. *Scolopacidae*, and *Burhinus* var., Fam. *Burhinidae*, Ord. *Gruiformes*⁵⁴⁰

Fol. 125r, left side of lines 3–8; 50×85 mm

A gull-like white bird, in left profile, stands on a green strip of grass. It has long legs and a curving pale-orange beak. The painting is damaged. Some feathers are retouched; part of the tail is damaged.

‘This bird is called *jaupina*⁵⁴¹ in Persian.’

[London fol. 125r: 3; Munich fol. 195v: 6–7; Cairo II text missing]

Cat. 325 (Fig. 2.4)

White Stork (*laqlaq*)

Ciconia ciconia, Fam. *Ciconiidae*, Ord. *Ciconiiformes*⁵⁴²

Fol. 125r, right side of lines 10–15; 55×90 mm

A white stork fights with a black snake on a grassy foreground. The snake twirls around the bird’s body while the stork holds the reptile in its long beak. The painting is slightly damaged. Pigment is missing.

‘This bird is a well-known snake-eater, which always follows the spring. It builds two nests only on tall places like towers and trees and keeps moving from one to the other.’

[London fol. 125r: 8–9; Munich fol. 195v: 9–10; Cairo II: 288, 24–8]

Cat. 326 (Fig. 2.4)

Heron (*mālik al-hazīn*)

Ardea var., Fam. *Ardeidae*, Ord. *Ciconiiformes*⁵⁴³

Fol. 125r, left side of lines 17–22; 59×93 mm

Two herons, depicted in left profile, stand on a grassy foreground. Their black beaks are open; one has a raised leg. The painting is heavily damaged, retouched and patched. Pigment is missing.

‘This bird has a long neck and long legs. It is called *bū-timār* in Persian. Al-Jāhiz says that it prefers to stay in deep water and believes that, if it allows itself to drink water when it is thirsty, then the water will decrease; therefore it refuses to drink and sometimes dies for this reason.’⁵⁴⁴

[London fol. 125r: 17–23; Munich fol. 195v: 19–24; Cairo II: 289, 16–24]

Cat. 327 (Fig. 2.4)

Hoopoe Lark (*mukkā*)

Alaemon alaudipes, Fam. *Alaudidae*, Ord. *Passeriformes*⁵⁴⁵

Fol. 125r, right side of lines 21–3; 26×60 mm

A minuscule white bird is visible amongst the grass. The painting is damaged. The head is retouched; the rest is original.

‘This bird lives in the countryside and builds its strange nesting place with [twigs from] the plant called *alā*’ and wormwood,⁵⁴⁶ and lays its eggs there. [. . .] There is great enmity between the Hoopoe Lark and the Snake because the latter eats its eggs and the newborn chicks.’

[London fol. 125r: 24 and fol. 125v: 1; Munich fol. 195v: 25–6 and fol. 196r: 1–2; Cairo II: 289, 25–7 and 33–4]

Cat. 328

Vulture (*nasr*)

Gyps var., Fam. *Accipitridae*, Ord. *Accipitriformes*⁵⁴⁷

Fol. 125v, left side of lines 4–10; 64×85 mm



A large pale-purple and grey bird, seen in left profile, stands on a grassy foreground. It has a short tail, curved beak and protruding chest. The painting is in good condition. Some pigment is missing.

'The Vulture is called *kargas* in Persian.

It eats the flesh of corpses until it is so full that it is unable to fly. [...] It is recorded that it lives for one thousand years and covers its eggs with plane leaves in order to prevent bats from eating them.⁵⁴⁸ When the female is about to lay an egg the male flies to India, where it collects a [magical] stone to ease her pains.⁵⁴⁹ When sick, the Vulture eats human flesh, and when its sight becomes weak it eats a man's gall.'

[London fol. 125v: 3–13; Munich fol. 196r: 4–11; Cairo II: 290–1]⁵⁵⁰

Cat. 329

Ostrich (*na'āma*)

Struthio camelus, Fam. *Struthionidae*, Ord. *Struthioniformes*⁵⁵¹

Fol. 125v, left side of lines 17–24; 87×94 mm

Col. 77 Vulture (*nasr*), fol. 125v, 64×85 mm; Ostrich (*na'āma*), fol. 125v, 87×94 mm.

A large pale-grey bird, in left profile, stands on a grassy foreground. It has long orange legs with hoofs. The painting is heavily damaged. Its head, neck and part of the body are damaged.

'This animal is a sort of cross between a bird and a Camel. It is called *shutur-murgh* in Persian. It has the neck, the eyebrows and the padded foot of the Camel, and the beak, the wings and the feathers of a bird. It has a good sense of smell and of hearing, and eats stones. [...] The Ostrich lays twenty or more eggs at a time, then it divides them into three groups: it hides one third in the dust, it leaves one third out in the sun, the rest it hatches: when the chicks are born, they break the [shell of the] eggs that lay in the sun and eat what is inside.'

[London fol. 125v: 17–21 and fol. 126r: 6–8; Munich fol. 196r: 16–18 and 23–7; Cairo II: 292, 11–18 and 293, 16–25]

Cat. 330**Hoopoe** (*hudhud*)

Upupa epops, Fam. *Upupidae*, Ord. *Coraciiformes*⁵⁵²

Fol. 126r, left side of lines 14–18; 49×88 mm

A pale-red hoopoe with black spots, in left profile, stands on a grassy foreground. It has a large gold and black crest over its head and its thin beak is open. The painting is in good condition.

'This bird has an unpleasant smell because it splashes its nesting place with human excrement. The Prophet [...] forbade its killing because it had been Solomon's guide to find water [on his way to Mecca]. It likes to worship God and is a very lonely bird. The story is told that the Hoopoe once told Solomon: [...] "I am so lonely, why do you not join me and be my guest?" Solomon replied: "I accept your invitation, and shall be on a certain island on such a day with all my army." And so he did. When he arrived, the Hoopoe seized a locust, killed it and threw it into the sea, then said: "Now eat, Prophet of God. If the flesh of it which passed away is not enough, at least there is plenty of broth!" Solomon laughed with his soldiers at the [joke].'

[London fol. 126r: 14–21; Munich fol. 196v: 6–11; Cairo II: 294, 9–27]



Col. 78 *Hoopoe* (*hudhud*), fol. 126r, 49×88 mm.

Cat. 331**Martin** [?] (*waṭwāt*)

Hirundo var., *Riparia* var., Fam. *Hirundinidae*, Ord. *Passeriformes*⁵⁵³

Fol. 126v, left side of lines 9–15; 63×88 mm

A white wading bird, pictured in left profile, stands on a grassy foreground. It has a long neck and a straight long grey beak. The painting is in good condition.

'This bird is called *bāl wāya*⁵⁵⁴ in Persian. Pliny says that the Martin dives into the water and who drinks from that water will be unable to sleep for one month. If someone hangs a human hair from the neck of a Martin and sends it [to someone, this person] will be unable to sleep until the Martin dies or the hair is returned.'

[London fol. 126v: 9–13; Munich fol. 197r: 1–5; Cairo II: 296, 14–24]⁵⁵⁵



Col. 79 Martin [?] (watwāt), fol. 126v, 63×88 mm.

*Insects and Creeping Animals*⁵⁵⁶

Cat. 332 (Fig. 3.23)

Dragon (*thu'bān*)⁵⁵⁷

Fol. 127r, between lines 13 and 14; 95×167 mm

A large Chinese-inspired pink dragon, in left profile, floats against a blank background. It has a sinuous scaled body bordered in gold, a monstrous head provided with a short trunk, long red tongue, horn, crest and blue beard. Two clawed legs extend from its body and a floating blue 'wing' or fin is attached to the left leg. The painting is in good condition.

'It is an animal of formidable appearance, of terrifying form and of dreadful aspect. Ibn Sīnā states that the smallest of [their species] are five cubits long, whereas the largest of them are thirty cubits and more. [The Dragon] is provided with two large eyes and huge canine teeth. It is said that it is often found in the regions of Nubia and India. The Indian [Dragon] is very large [indeed]: its face is yellow and black, its mouth is huge, a coat protects its eyes, and its neck is piebald. [...] When it goes into the water it turns into a sea animal, and when it returns to the land it becomes a terrestrial animal [again] even if it lives in the sea for a long time. It seeks refuge in towering mountains and is [there] relieved from the flaring heat by the cold temperature.'

[London fol. 127r: 9–12 and 15 and fol. 127v: 1; Munich fol. 198v: 13–16 and fol. 199r: 2–3; Cairo II: 305, 8–22 and 306, 7–13]⁵⁵⁸

Cat. 333

Chameleon (*ḥirbā*)

Chamaeleo chamaeleon, Fam. *Chamaeleontidae*, Ord. *Squamata*, Subord. *Sauria*

Fol. 127v, left side of lines 12–16; 46×71 mm

A small four-legged pale-orange animal climbs a low trunk on a grassy foreground. It has a long tail and wears a gold collar. Its belly is also gold. The painting is in good condition.

'This animal is bigger than the [animal called] *'adāyya*.⁵⁵⁹ It is called *aftāb-parast*⁵⁶⁰ in Persian. It moves circularly towards the sun, always facing it until it sets. [The Chameleon] is ash-grey, then it becomes yellow and when the sun's heat strikes it, it turns green; it is said that its colours change according to the time of day, one colour for every hour.'

[London fol. 127v: 14–17; Munich fol. 199r: 18–22; Cairo II: 308, 11–20]



Col. 8o Chameleon (*ḥirbā*), fol. 127v, 46×71 mm.

Cat. 334 (Fig. 5.31)

Snail (*ḥalazūn*)

Class *Gastropoda*, Phylum *Mollusca*⁵⁶¹

Fol. 127v, left side of lines 22–5; 40×72 mm

The pale-brown head of a small animal protrudes from a multilobed pale-blue shell set against a blank background. The painting is damaged. The shell is patched and the head is damaged.

'[The Snail] is a worm [which lives] inside a [sort of] stone tube and lives on the sands of the sea-shores and of the river banks. That worm extends half of its body from its shell-tube, and proceeds right and left looking for food.'

[London fol. 127v: 23–5 and fol. 128r: 1; Munich fol. 199v: 9–11; Cairo II: 309, 16–25]

Cat. 335 (Fig. 3.10)

Snake (*ḥayya*)

Ord. *Squamata*, Subord. *Ophidia*⁵⁶²

Fol. 128r, between lines 5 and 6; 103×168 mm

A large pink snake with white scales has the same Chinese-inspired dragon's head as described above (cat. 332). Its body is twisted in the middle to form a heart-shaped knot. The painting is damaged in many places. Some pigment is missing.

'This is one of the largest animals and the most courageous. The less it eats the longer it lives. It is said that no animal living on earth is bigger than the Sea Dragon⁵⁶³ and nothing kills faster than the Snake's bite. For this reason the Prophet (peace and benediction

upon him) said that the Snake can be killed in case [one is] free from *ihrām* but also in the state of *ihrām*.⁵⁶⁴ [He] also [said that] he who kills the Snake will have [performed] ten deeds.⁵⁶⁵ Galenus said that the Snake is provided with three tufts of hair on its head, something like a small crown. It is said that the Snake lives one thousand years and changes its skin every year.'

[London fol. 128r: 4–6 and 14 and fol. 128v: 1–2; Munich fol. 199v: 15–18 text partially missing; Cairo II: 310, 8–19 and 312, 10–16]

Cat. 336

Earthworms (*kharātīn*)

*Fam. Lumbricidae, Class Oligocheti, Phylum Annelida*⁵⁶⁶

Fol. 128v, left side of lines 18–24; 67×90 mm

Several S-shaped tiny red worms are scattered on a grassy bluish landscape. The painting is in good condition.

'They are long red worms [also] called "the grease of earth" and are found in damp places. They are grilled and eaten with bread [in order to help] to crumble bladder stones.'

[London fol. 128v: 19–21; Munich fol. 200r: 21–3; Cairo II: 315, 14–19]



Col. 81 Earthworms (*kharātīn*), fol. 128v, 67×90 mm.

Cat. 337 (Fig. 5.32)

Gecko (*sāmm abraṣ*)

Gekko gekko, Fam. Gekkonidae, Ord. Squamata, Subord. Sauria

Fol. 129r, left side of lines 9–11; 30×75 mm

A small pale-brown mouse-like animal, in left profile, walks on a grassy foreground. It has a long thin tail. The painting is in good condition.

'It is [also called] *wazagh*⁵⁶⁷ and has a small head and a long tail. Yahyā ibn Ya‘mar⁵⁶⁸ said that the killing of a hundred Geckoes is like setting free a hundred slaves. He said this because [the Gecko] is an evil animal.'

[London fol. 129r: 10–11; Munich fol. 201v: 10–12; Cairo II: 327, 1–7]

Cat. 338**Tortoise or Turtle** (*sulahfā*)

Fam. Cheloniidae and *Fam. Testudinae*, *Ord. Chelonia*, *Subord. Cryptodira*

Fol. 129r, right side of lines 18–23; 57×60 mm

A small green tortoise is seen from above against a blank background. Its four legs and head protrude from the shell. The painting is partially damaged. The head and part of the shell are damaged.

‘It is called *kashaf* in Persian. It is [both] a terrestrial and a marine animal. When one fears that cold weather [will hit] gardens and crops, one [must] find a Tortoise and place it upside down, its legs to the sky: in this way the chill will not affect that location.’

[London fol. 129r: 17–19; Munich fol. 201v: 18–20; Cairo II: 328, 12–19]



Col. 82 Tortoise or Turtle (*sulahfā*), fol. 129r, 57×60 mm.

Cat. 339 (Fig. 3.24)**The Animal Called ‘Šannāja’⁵⁶⁹**

Fol. 129v, below line 4; 205×168 mm

An enormous fantastic animal is seen frontally against a blank background. Its skin is brown with long black hair. All over its body are red, blue and black spots. Its head is broad, demon-like: it has short pointed furry ears, elongated eyes, large nose and nostrils, curly hair, moustache, a slightly opened mouth showing four short tusks and smoke escaping from it. Its body is massive and its skin shows extraordinary folds. The animal apparently sits on two massive paws. The painting is slightly damaged. A small patch is over its right ear. Some pigment is missing.

‘This animal is not comparable to any other and is the largest animal on earth. It is found in Tibet. The cave it finds for itself is about one parasang large. One of its peculiarities is that its sight kills whichever animal looks at it, [but] it is the Šannāja⁵⁷⁰ which dies if it looks at that animal first. The [other] animals know this, which happens in that country, therefore they approach the Šannāja

with their eyes closed in order to make it look at them [first; in this way] the Šannāja dies and becomes nourishment for those animals for quite a long time.'

[London fol. 129v: 1–4; Munich fol. 202r: 8–9 and fol. 202v: 1–2; Cairo II: 320, 5–22]

Cat. 340

Mouse (*fār*)

Fam. Cricetidae and *Fam. Muridae*, *Ord. Rodentia*⁵⁷¹

Fol. 130r, right side of lines 4–10; 65×70 mm

Two pale-pink mice, seen in left profile, walk on a U-shaped slope. They have long thin tails. A large red flowered plant grows in the middle, between the two animals. The painting is in good condition. Some pigment is missing.

'This is a vicious animal, able to do many tricks. [. . .] It pulls out the burning wick from lamps and sets houses on fire with all the valuable things they contain. [The Mouse] chews account books and copybooks, documents and contracts, and eludes the right [revenge] of people. It [also] bites costly clothes and skin[-bags], dissolves what is inside them, eats the semi-liquid material [thus produced], drops its dung and makes the rest rot so that people cannot make any further use of them.'

[London fol. 130r: 3–8; Munich fol. 203v: 19–23; Cairo II: 339, 16–22 and 340, 1–9]



Col. 83 Mouse (*fār*), fol. 130r, 65×70 mm.

Cat. 341 (Fig. 2.27)

Mole Rat (*khuld*)

Myospalax, *Fam. Spalacidae*, *Ord. Rodentia*⁵⁷²

Fol. 130v, left side of lines 14–20; 65×77 mm

A mouse similar to the previous two animals (cat. 340) walks up a slope on a strip of grass. The painting is in good condition. Some pigment is missing.

'There is a species [of mouse] called Mole Rat. God made it blind.

It lives in the open country and possesses a sharp sense of hearing. [. . .] It is said that when the female becomes pregnant, the male dies. If someone wants to hunt [the Mole Rat, he needs to] leave some onion near its hole.'

[London fol. 130v: 14–19; Munich fol. 204r: 20–5; Cairo II: 344, 23–5 and 345, 1–6]

Cat. 342 (Fig. 2.27)

Musk Rat (*fārat al-misk*)

Ondatra zibethicus, Fam. Muridae, Ord. Rodentia

Fol. 130v, right side of lines 21–5; 54×79 mm

Same description as above (cat. 341). The painting is in good condition.

'There is a species [of mouse] called Musk Rat, which is found in a place called Adhfar⁵⁷³ in the land of Tibet. It is said that its navel reeks of musk like [that of] the gazelle. Hunters chase it and tie its stomach until blood springs out. Its musk is much better than the gazelle's and is tenfold more valuable.'

[London fol. 130v: 20–4; Munich fol. 204r: 26 and fol. 204v: 1; Cairo II: 345, 8–17]

Cat. 343

Monitor Lizard (*waral*)

Varanus, Fam. Varanidae, Ord. Squamata, Subord. Sauria

Fol. 131r, right side of lines 19–24; 49×87 mm

A large mouse-like animal with pale-brown fur, in left profile, walks on a grassy foreground. It has a long tail. The painting is partially damaged. Part of the body is damaged.

'This is a large animal of the same aspect as *wazaghs* and Geckoes.⁵⁷⁴ It has a long tail, it is strong and runs fast with agile



Col. 84 Monitor Lizard (*waral*), fol. 131r, 49×87 mm.

movements. It is the enemy of lizards and snakes and gets into their holes to devour them. No animal is stronger than the Monitor Lizard in killing snakes.'

[London fol. 131r: 18–21; Munich fol. 207r: 13–15; Cairo II: 375, 16–18 and 376, 1–5]

Strange People and Animals which Differ from the Known Species

Cat. 344 (Fig. 3.34)

The People of Gog and Magog⁵⁷⁵

Fol. 131v, left side of lines 10–17; 74×133 mm

Two naked men, in left profile, run on a grassy and watery landscape. They have long hair, small tusks, and wear gold collars and belts. The painting is heavily damaged. There are two patches, one over the left thigh and the right arm of the figure on the left and another from the head to the thigh of the figure on the right.

'Among [the peoples with a strange aspect] are Gog and Magog who are known only to God. They are as tall as half a man, have tusks like wild animals, claws replacing their nails and are covered with hair.'

[London fol. 131v: 9–15; Munich fol. 207v: 4–5; Cairo II: 377, 14–18 and 378, 1–4]

Cat. 345 (Fig. 3.34)

The 'Munsuk' People

Fol. 131v, right side of lines 19–23; 52×95 mm

Two men, in left profile, walk on the grassy foreground. The scene is set against a red background. The men have enormous elephant-like ears that cover their bodies so that only their arms and legs are visible. The ears are pink with gold edges. The painting is heavily damaged. The right side of the illustration is missing. Only the head and one hand of the figure on the right is visible. The rest is original. Some pigment is missing.

'Some people called Munsuk live in the East not far from Gog and Magog. They have ears as large as an elephant's and [they use them] as a garment: they wrap one of the two [around their body] and they spread the other one out. They are [also] called *gilim* [...].'⁵⁷⁶

[London fol. 131v: 17–22; Munich fol. 207v: 6–7; Cairo II: 378, 5–11]

Cat. 346 (Fig. 5.33)

The People near Alexander's Wall⁵⁷⁷

Fol. 132r, between lines 2 and 3; 65×168 mm

Three naked men with dark-grey skin are placed on a grassy foreground. Two of them sit, one stands. A low flowered tree is visible on the right. The painting is partially damaged. A patch runs from the head to the foot of the standing figure. Some pigment is missing.

'Another people live in the mountains near Alexander's Wall. They are small, with a broad face, and are black-skinned with white and yellow spots. They are five spans tall, quite wild, and climb trees.'

[London fol. 132r: 1-2; Munich fol. 207v: 8-9; Cairo II: 378, 11-17 and 379, 1]

Cat. 347 (Fig. 5.33)

The People of Sumatra⁵⁷⁸

Fol. 132r, between lines 4 and 5; 57×168 mm

Three winged men walk on a grassy foreground. The skin of the figure on the left is pink, that of the central figure dark grey, and the other pale-yellow; their open wings are white and gold. The painting is heavily damaged. Much pigment is missing. A leg of the figure on the right is retouched.

'A [race of] people who live on the island of Sumatra are similar to human beings [but] speak an incomprehensible language. They [also] eat and drink like men, [but] have wings to fly. Their skin can be white, yellow, black or green.'

[London fol. 132r: 3-4; Munich fol. 211r: 1; Cairo II: 379, 2-8]

Cat. 348 (Fig. 5.33)

The People of Rāmnī⁵⁷⁹

Fol. 132r, below line 6; 57×168 mm

Three naked men stand on a grassy foreground. The figure in the centre has an awkward posture: he stands on one leg and bends down; the other leg is raised backwards; one arm is stretched forward. The figure on the left has open arms. The painting is partially damaged. Much pigment is missing. Some parts are retouched.

'A[nother] people from the island of Rāmnī have human features. They are naked, since they do not wear any clothes, and speak a language which only they can understand. They are small, [only] five spans tall, and use their long red hair as a garment.'

[London fol. 132r: 5-6; Munich fol. 211r: 3-4; Cairo II: 379, 8-12]

Cat. 349 (Fig. 1.2)

The Blind People of Zanj⁵⁸⁰

Fol. 132v, between lines 2 and 3; 46×167 mm

Three naked men kneel on a grassy foreground; between them are two excited cranes. The men cover their faces with their hands. The painting is damaged. The figure on the right is patched; the rest is original. Much pigment is missing.

'Some people living on certain islands of the Sea of Zanj are [only] one cubit tall and many among them are blind due to their fights with the cranes. These birds come every year and blind and kill [many] of them, according to God's will.'

[London fol. 132v: 1-2; Munich fol. 211r: 5-6; Cairo II: 379, 13-17]

Cat. 350 (Fig. 1.2)**The 'Sagsār' People of Zanj**⁵⁸¹

Fol. 132v, between lines 4 and 5; 74×167 mm

Three naked men with dog-like heads walk on a grassy foreground. The figure in the centre curves to the ground. They wear collars. The painting is damaged. There is a criss-cross patch over the body of the figure on the left; the rest is original. Some pigment is missing.

'A[nother] people living on a certain island of the Sea of Zanj are dog-faced whereas the rest of their body is human. They live on fruit found on the trees of that island, [but] they [also] eat [the flesh] of the animals which they are able to find. They are called 'Sagsār'⁵⁸² in Persian.'

[London fol. 132v: 3-4; Munich fol. 211v: 8-9; Cairo II: 380, 1-8]

Cat. 351 (Fig. 1.2)**The Soft-legged People of Zanj**⁵⁸³

Fol. 132v, left side of lines 7-12; 65×142 mm

In the centre of the painting, a man wearing a red tunic leans on a red stick and carries a naked figure who twists his legs around his neck. Two other naked figures kneel on a grassy foreground on either side. The painting is damaged. The figure on the left is almost entirely patched except for his head and one hand. Some pigment is missing.

'On the [same] island there are people with beautiful human features whose legs are boneless so that they crawl about on the ground and are unable to stand. If they see someone [approaching] they jump on his neck, twist their legs around him and treat him badly by beating and hitting him on his face, and make fun of him as one is used to behaving with an animal.'

[London fol. 132v: 5-12; Munich fol. 211v: 1-3; Cairo II: 380, 8-17]

Cat. 352 (Fig. 1.3)**The Elephant-like People**

Fol. 133r, left side of line 2 and between lines 2 and 3; 63×164 mm

Two naked figures with elephant heads and gold wings, in left profile, walk on a grassy foreground. One of them bends to the ground. The painting is slightly damaged. Some pigment is missing.

'On a certain island live some people who are provided with wings and small trunks, and are covered with hair. They [can] walk either on two or four legs. They are regarded as jinns.'

[London fol. 133r: 1-2; Munich fol. 211v: 4-5; Cairo II: 381, 1-6]

Cat. 353 (Fig. 1.3)**The Horse-like People**

Fol. 133r, between lines 3 and 4; 77×158 mm

Two naked figures with horse heads and gold and white wings, in left profile, walk on a grassy foreground. The painting is slightly

damaged. A vertical patch covers the right wing of the figure on the right. Some pigment is missing.

'A tall, winged, blue-eyed people are agile in their movement; they are half-horse, half-human bodied.'

[London fol. 133r: 3-4; Munich fol. 208r: 1-2; Cairo II: 381, 7-11]

Cat. 354 (Fig. 1.3)

The People with Two Faces

Fol. 133r, below line 4; 76×161 mm

Three naked figures walk on a grassy foreground. They have two faces, long tails, prominent breasts, long hair and wear collars. Two of them stand while the figure on the right bends to the ground. The painting is partially damaged. Pigment is missing.

'Some people with human features have two faces and a long tail, while the rest of their body is human-like.'

[London fol. 133r: 5; Munich fol. 208r: 3; Cairo II text missing]

Cat. 355 (Fig. 1.4)

The People with Multiple Legs

Fol. 133v, between lines 1 and 2; 57×162 mm

Two naked bearded figures with many legs are on a grassy foreground. The painting is entirely damaged. It is difficult to distinguish what is original and what is retouched. There are two patches. Probably only some legs and the arms of the two figures are original.

'People with two heads and many legs are able to sing like birds.'

[London fol. 133v: 1; Munich fol. 208r: 4; Cairo II: 381, 11-14 text slightly different]

Cat. 356 (Fig. 1.4)

The Female People

Fol. 133v, between lines 3 and 4; 47×158 mm

Two naked figures with long hair are shown in left profile on a grassy foreground. The figure on the left kneels, the other sits cross-legged. The painting is heavily damaged. A vertical patch runs from the head to the waist of the figure on the left. Some pigment is missing.

'Some naked female beings are barefoot and have [long] hair and female breasts. No[t a single] male [is found] among them. They catch the wind, get pregnant [in this way] and then give birth only to daughters.'

[London fol. 133v: 2-3; Munich text missing; Cairo II: 381, 15-16 and 382, 1-2]

Cat. 357 (Fig. 1.4)

The Human-headed Snakes

Fol. 133v, between lines 4 and 5; 57×162 mm

Two human-headed snakes, seen in left profile, crawl on a grassy

foreground. They wear gold collars. The painting is slightly damaged. Some pigment is missing.

'[There are] some people with human heads and snake-like bodies.' [London fol. 133v: 4; Munich fol. 208v: 1; Cairo II: 382, 5-7]

Cat. 358 (Fig. 1.4)

The People with the Face on Their Chest

Fol. 133v, below line 6; 50×160 mm

Two naked figures walk on a grassy foreground. Their faces are depicted in the middle of their chests. A tall plant is visible on the right side of the painting. The illustration is heavily damaged. The figure on the left is entirely retouched. Much pigment is missing.

'On some islands of the Chinese Sea⁵⁸⁴ live people without heads and their mouths and eyes are placed on their chests.'

[London fol. 133v: 5-6; Munich fol. 208v: 2; Cairo II: 382, 8-11]

Cat. 359 (Fig. 2.16)

The Cross between Dog and Wolf

Fol. 134r, left side of lines 1-5; 45×114 mm

A pale-brown wolf or dog, shown in left profile, stands on a grassy foreground. It wears a collar and has a long furry curled tail; its right foreleg is raised. The painting is slightly damaged. A small patch covers the raised leg. Much pigment is missing.

'The cross between the Dog and the Wolf is called *daysam* [?].⁵⁸⁵ It is reported that the wolves corrupted the dogs in the land of Salūqa in Yemen, and from these dogs was born the breed of the *salūqīs*,⁵⁸⁶ which are the most vicious dogs.'

[London fol. 134r: 1-5; Munich fol. 209v: 5-6; Cairo II: 386, 1-5]

Cat. 360 (Fig. 2.16)

The Cross between Pigeon and Ring Dove

Fol. 134r, right side of line 6 and between lines 6 and 7; 62×41 mm

A pale-pink bird stands on a grassy foreground. The whole painting is damaged. Only the grass is original; the bird is entirely patched.

'The cross between the Pigeon and the Ring Dove⁵⁸⁷ has a strange shape and is called *rā'ibī*.⁵⁸⁸

[London fol. 134r: 6; Munich fol. 209v: 7-8; Cairo II: 386, 6-8]

Cat. 361 (Fig. 2.16)

The Giant 'Ūj ibn 'Anaq⁵⁸⁹

Fol. 134r, between lines 6 and 7 and left side of lines 7-22; 187×125 mm

A very tall naked bearded man holds a large blue rock above his head with his right hand. A small white bird stands on the rock and pecks at it. The background is blank. The painting is partially damaged. There is a diagonal patch over the right forearm and the hand of the giant. The head is damaged. Much pigment is missing.

‘Wahb ibn Munabbih⁵⁹⁰ reports the story of ‘Ūj ibn ‘Anaq: “He was a nice and pleasant man whose height, strength and age were known only to God. He had lived long until the period of Mūsā ibn ‘Umrān [Moses] (peace be upon him). At the epoch of Noah (peace be upon him) [‘Ūj] had asked him to be taken on his ark. [Noah] said: ‘Who takes you [must] be foolish, you enemy of God!’ So water, which covered [‘Ūj only] to the waist [since] he was a giant, spread on earth both on land and sea, and destroyed everything. According to God’s will, [in the time of Moses] the Banū Isrā’īl were confined to a desert place. [. . .] Their camp was two-parasang square and extended to a mountain nearby. [. . .] [‘Ūj] lifted [the top of the mountain] above his head and intended to throw it on the Banū Isrā’īl to annihilate them. But God sent out a bird whose bill was made of a round stone: it stood on the rock that ‘Ūj had lifted and pierced it in the middle, so that the rock fell around his neck. God informed Moses of the fact, so [Moses] went to him, beating him with a stick until he died.”’ [London fol. 134r: 12–22 and fol. 134v: 1–6; Munich fol. 210r: 2–9; Cairo II: 387, 1–14, 388, 1–14 and 389, 1–4]

Cat. 362 (Fig. 5.34)

The Giant from Bulghār

Fol. 134v, left side of lines 5–14; 93×110 mm

A naked man sits cross-legged on a grassy foreground. He has long hair and a beard. He seems to look at a tall plant on his right. The painting is partially damaged. His right hand, knee, forehead and one thigh are patched; the rest is original. Some pigment is missing.

‘Aḥmad ibn Faḍlān,⁵⁹¹ the envoy of al-Muqtadir billāh⁵⁹² to the King of Bulghār, said to him: “I have been told that in the land of Bulghār there is an extraordinary huge man and I [wish] to be informed about the matter.” The King replied: “Yes, it is true, but he is not from our land. He was dropped by the river Volga a long time ago during the flood. He is twelve cubits tall, his head bigger than the largest pot, and his nose one span long. [. . .] He lived among us for a while, then he died. I saw his body and it was quite formidable.”’

[London fol. 134v: 7–15; Munich fol. 210v: 1–14; Cairo II text missing]

Cat. 363 (Fig. 5.34)

The Giant from Mosul

Fol. 134v, right side of lines 16–25; 98×79 mm

A bearded man, shown in left profile, stands on a grassy foreground. His right arm is raised. He wears a long red tunic with a gold rim, black boots, and a blue and gold cap. The painting is slightly damaged. The face is probably retouched; the rest is original.

‘A man of law said that in the year 627/[1228–9] a nine-cubit-tall man who was just over fifteen years old lived in Mosul among the Muslim Kurds, a people living on the mountains around Mosul. He

could lift a strong man and throw him behind his back just as we can do the same with a cat. The ruler of Mosul, Badr al-Dīn Lu'lu',⁵⁹³ intended to employ him [for his strength] but he was told that [the giant] was stupid and his employment was [therefore] useless, so [Badr al-Dīn] gave up the idea.'

[London fol. 134v: 16–24; Munich fol. 210v: 15–27; Cairo II: 389, 4–14]

Cat. 364–5 (Fig. 3.19)

The Siamese Twins from Yemen

Cat. 364: fol. 135r, right side of lines 2–11; 93×122 mm

A man looks at a naked figure on the left-hand side, which has two heads and four arms. Both stand on a grassy foreground. The painting is heavily damaged. Only the raised arm of the man, the other figure and the grass are original; the rest of the man's body is patched. Much pigment is missing.

Cat. 365: fol. 135r, left side of lines 12–18; 70×103 mm

A veiled woman wearing a red tunic, shown in left profile, sits on a grassy foreground. Red ribbons attached to her white veil float behind her head. The painting is partially damaged. A diagonal patch covers part of the ribbons, the left shoulder and the left leg of the woman; the rest is original. Some pigment is missing.

'Al-Shāfi'ī (God bless him)⁵⁹⁴ said that he went to a village in Yemen and saw a creature whose lower half was in the shape of a woman's body; the upper half had [instead] two waists and two heads, two faces, and four arms, and they fought one another all the time and then made peace, and drank and ate together. "I was away for two years and when I went back I enquired about the creature. I was told that [. . .] one of the two [parts] had died and had been cut [from the body], so that the other part was now living and walking around [. . .]."

[London fol. 135r: 1–11; Munich fol. 212r: 1–7; Cairo II: 392, 1–14 and 393, 1–3]

Cat. 366–7 (Figs 3.19–3.20)

The Human-headed Rook⁵⁹⁵

Cat. 366: fol. 135r, right side of lines 20–5; 53×50 mm

A human-headed black crow with orange legs stands on a grassy foreground. It has two humps on its back and chest, and a gold roundel on its body. The painting is damaged. The bird's head is damaged. Some pigment is missing.

Cat. 367: fol. 135v, between lines 4 and 5; 85×167 mm

The same crow as above (cat. 366) is inside a cage. It faces a man sitting on cushions on the right side on a grassy foreground. A second person is behind the cage, on the left. The painting is heavily damaged. The figure on the left is patched; the head of the seated man is retouched; the rest is original. Much pigment is missing.

'Abū Sa'īd al-Sīrāfi⁵⁹⁶ said that he had read a story in a book concerning the *qadi* Yaḥyā ibn al-Aktham:⁵⁹⁷ "He had with him a satchel that contained a bird similar to a rook, with a human head and two wings, one on its back and one on its chest. So I asked him: 'What did God bring to you?' He replied: 'Ask it something.' I said: 'What are you?' It rose and recited with eloquent words: 'I am the Rook Abū 'Ajwa⁵⁹⁸ / I am the son of a Lion and a Lioness / I love wine and sweet basil / [. . .].' Then it cried and kept saying 'Rook, Rook' lying down in its satchel. I said: 'God has blessed you, *qadi*.' He said: 'What you see has been brought to the *amīr al-mu'minīn* [Caliph al-Ma'mūn] with a sealed book which explains its [extraordinary] ability.'"

[London fol. 135r: 18–22 and fol. 135v: 1–3; Munich fol. 212r: 8–18; Cairo II: 390, 1–14 and 391, 1 and 11–16]

Cat. 368 (Fig. 3.20)

The Horned Horse and the Winged Fox

Fol. 135v, below line 8; 69×162 mm

A reddish-brown horse with gold wings, in left profile, stands on a grassy foreground on the right. Two long straight horns grow from its head. On the left, a pale-brown fox with gold wings and a long furry tail sits on the grass. The painting is partially damaged. The fox's forelegs and head are missing. Some pigment is missing.

'Abū al-Rayḥān al-Khwārizmī [al-Bīrūnī]⁵⁹⁹ reported that the governor of Asbījāb sent a Horse with two horns and a Fox with two wings to the Samanid Nūḥ ibn Maṣṣūr, ruler of Khorasan and Transoxiana.⁶⁰⁰

[London fol. 135v: 3–4; Munich fol. 212r: 19–21 and fol. 212v: 7–9; Cairo II text missing]

Key 1: Abbreviations of bibliography on flora

A = Schweinfurth, Georg (1912), *Arabische Pflanzennamen aus Aegypten, Algerien und Jemen*, Berlin: Dietrich Reimer.

B = Bedevian, Armenag K. (1936), *Illustrated Polyglottic Dictionary of Plant Names*, Cairo: Argus and Papazian.

C = Carboni 1988–9 (plant names are taken from various dictionaries and from the list given by Badiee 1978).

D = Sadek, Mahmoud M. (1983), *The Arabic Materia Medica of Dioscorides*, St-Jean-Chrysostome, Quebec: Éditions du Sphinx.

E = Britten, James and Robert Holland (1965), *A Dictionary of English Plant Names*, Vaduz: Kraus Reprint (1st edn London 1886).

F = Hutchinson, John (1973), *The Families of Flowering Plants*, Oxford: Oxford University Press (1st edn Oxford 1934).

FAO = *Al-nabātāt wa al-mantūjāt al-nabātiya*, F.A.O. Terminology Bulletin, no. 25/2, 1983.

G = Dietrich, Albert (1988), *Dioscurides Triumphans – Ein anonym arabischer Kommentar (Ende 12. Jahrh. n. Chr.) zur Materia Medica*, 2 vols, Göttingen: Vandenhoeck & Ruprecht.

H = Hora, Bayard (ed.) (1981), *The Oxford Encyclopaedia of Trees of the World*, Oxford: Oxford University Press.

J = Hooper, David (1937), *Useful Plants and Drugs of Iran and Iraq*, Botanical Series, vol. 9, no. 3, Chicago: Field Museum of Natural History.

L = Meyerhof, M. (1935), 'Esquisse d'histoire de la pharmacologie et de la botanique chez les Musulmans d'Espagne', *Al-Andalus*, 3: 1–41.

M = *Al-Munjid al-muwahḥad, muʿjam mustaliḥāt al-nabāt, al-maṭbaʿa al-ṭaʾwūniyya*, vol. 5, 1978.

N = Levey, Martin (1973), *Early Arabic Pharmacology*, Leiden: E. J. Brill.

O = Van-Ollenbach, Aubrey W. (1978), *Planting Guide to the Middle East*, London and New York: Architectural Press.

P = Post, George E. (1932), *Flora of Syria, Palestine and Sinai*, Beirut: American Press (1st edn Beirut 1896).

Q = al-Batanuni, Kamal al-Din Hasan (1986), *Nabātāt fī ahādīth al-rasūl*, Doha.

R = Ibn Ridwan, Abu al-Hasan ʿAli ibn Jaʿfar (1981), *Kitāb al-kifāya fī al-ṭibb*, ed. Sulayman Qutaya, Baghdad: al-Maktaba al-Wataniyya.

RC = Renaud and Colin 1934.

S = Willis, J. C. and H. K. Airy Shaw (1973), *A Dictionary of the Flowering Plants and Ferns*, Cambridge: Cambridge University Press (1st edn 1897).

SG = Siggel 1950a.

T = Täckholm, Vivi (1956), *Student's Flora of Egypt*, Cairo: Anglo-Egyptian Bookshop.

U = Usher, George (1974), *A Dictionary of Plants Used by Man*, London: Constable.

V = Gerth van Wijk, H. L. (1911), *A Dictionary of Plant Names*, The Hague: Martinus Nijhof.

W = Wiedemann, Eilhard (1916), *Beiträge zur Geschichte der Naturwissenschaften, LIV: Übersetzung und Besprechung des Abschnittes über die Pflanzen von Qazwini*, Erlangen: M. Mencke.

X = Foureau, Fernand (1896), *Essai de catalogue des noms arabes et berbères de quelques plantes, arbustes et arbres algériens et sahariens*, Paris: Augustin Challamel.

Y = al-Hubaishi, Ahmed and Klaus Muller-Hohenstein (1984), *An Introduction to the Vegetation of Yemen*, Eschborn: Deutsche Gesellschaft für Technische Zusammenarbeit.

Z = Miller, Anthony G. and Miranda Morris (1988), *Nabātāt zufār*, Muscat: Diwan al-balati al-sultani.

Key 2: Abbreviations of bibliography on fauna

AM = al-Maʿluf, Amin Fahd (1932), *Muʿjam al-ḥayawān*, Cairo: al-Maṭbaʿa al-ʿAṣriyya.

E = Goodman, Steven M. and Peter L. Meininger (eds) (1989), *The Birds of Egypt*, Oxford and New York: Oxford University Press.

EI1 = *Encyclopaedia of Islam* (first edition), articles by Huart, 'Waṭwāt Rashīd al-Dīn', and J. Ruska, 'Nasr' and 'Uḳāb'.

EI2 = *Encyclopaedia of Islam* (new edition), articles by Ali Tarlan, 'Bulbul'; R. Blachère, 'Babbaghā'; L. Kopf, 'Dīk' and 'Dadjādja'; C. Pellat, 'Ankā' and 'Ghurāb'; F. Viré, 'Bayzara', 'Ḥamām' and 'Ḳaṭā'; A. J. Wensinck, 'Hudhud'.

H = Hue, François and R. D. Etchecopar (1970), *Les Oiseaux du Proche et du Moyen Orient*, Paris: Éditions N. Boubée & Cie.

M = Lakhdar Ghazal, Ahmad et al. (1974), *Waḥīsh al-maghrib: al-ṭuyūr – Faune du Maroc: Les Oiseaux*, Rabat: Institut d'études et de recherches pour l'arabisation.

N = Stephenson, Lieut-Colonel J. (1928), *The Zoological Section of the Nuzhatu-l-qulub of Hamdullah al-Mustaufi al-Qazwini*, London: Royal Asiatic Society.

O = Gallagher, Michael and Martin Woodcock (eds) (1980), *Ṭuyūr ʿumān – The Birds of Oman*, London: Quartet Books.

R = Renaud and Colin 1934.

S = Zakariyya, Ahmad Wasfi (1983), *Ḥayawānāt wa ṭuyūr bilād al-shām min al-naqab ilā ḥalab – Animals and birds of Syria from the Negev to Aleppo*, Damascus.

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Notes

1. Previously published in Carboni 1988–9: pl. VIA.
2. The general condition of the paintings of the London Qazvīnī has been dealt with in Chapter 2. A large number of illustrations have been repaired by a later owner at an unknown time by pasting a new piece of paper over the damaged area. This paper patch was then coarsely and inaccurately painted in order to attempt completion of the missing part of the illustration. The conservators at the British Library opted to leave these patches in place. The term ‘patch’ will be used with this meaning throughout the present catalogue.
3. In Arabic *farsakh*. A Persian measure, originally the distance which could be covered on foot in an hour. The *farsakh-i sharʿī* was officially fixed at 3 Arab *mīl* (miles) = 5.985 km. See Hinz, ‘Farsakh’, *El2*.
4. According to the preceding note, a mile (*mīl*) equals one third of a *parasang* = 1.995 km.
5. This short section – eleven illustrations due to missing pages which originally included all customary forty-eight constellations – does not present problems in terms of identification. A translation into German of this section is in Ideler 1809. An extensive literature exists on the subject and al-Qazvīnī relied entirely on previous sources, especially on the *Kitāb ṣuwar al-kawākib al-thābita* by al-Šūfī, for this section of his work. For the iconography of the constellations in the Islamic tradition see among others Drechsler 1873, Schjellerup 1874, Tietze 1911, Upton 1932–3, al-Šūfī 1954, Wellesz 1959, Benhamouda 1972, Rosenfeld 1980: 49–63, Kunitsch 1986, Sezgin 1986, Brend 1994, Raby 1994, Makariou and Caiozzo 1998, Carey 2001, Contadini 2006, Carey 2009 and 2010.
6. Literally ‘the Giant’, a constellation south-east of Taurus and south-west of Gemini. When the giant Orion died he was placed into the sky with his dog Sirius, thus forming two constellations. It is usually represented as a man wearing golden armour, the left arm covered by a lion skin and the right hand clutching a club or sword, as if in the act of hitting the head of Taurus, the Bull, which lowers its horns in defence. It is the most shining constellation due to the number of its brilliant stars and is visible from both hemispheres. It is also called *al-jawzāʾ* in Arabic, a name that became common for the constellation of Gemini; many of the stars belonging to the constellation include this term, such as *yad al-jawzāʾ* (‘the Hand of *al-jawzāʾ*’). The term was misinterpreted by European astronomers as *al-jawza* (‘the Nut’), as can be inferred from the Latin names *Nux* and *Juglans* sometimes given to this constellation.
7. This feature is common to all illustrations in this section.
8. Eridanus is located between the constellations of Cetus, Orion and Lepus. It represents the River Eridanus (the River Po in Northern Italy) where Zeus threw Phaeton who had been unable to drive the Celestial Chariot.
9. This and the next illustration (cat. 4) are inside the same frame, defined by a thin double red line. The dimensions of the painting in this case are given by the three framed sides and the ideal horizontal line which separates the two illustrations. This is the case for all the illustrations showing two subjects inside the same frame throughout the manuscript.

10. Lepus is above the left foot of Orion and it probably represents one of the animals hunted by him.
11. Canis Major is probably Sirius, Orion's hunting dog, or perhaps the dog Mera, which died after the death of its beloved Erigone.
12. Throughout the present catalogue 'good condition' means that the painting is original and in good condition and that it has been neither patched nor retouched.
13. Canis Minor is also called *al-kalb al-aṣghar*, 'the Smaller Dog'. It represents the dog Sirius or Mera (see above, note 11).
14. Argo Navis is the famous ship *Argo* which carried the Argonauts to Colchide in search of the Golden Fleece.
15. Hydra is a monster defeated by Hercules.
16. Crater, also called *al-ka's* ('the Cup') and *aqrātīrūs*. *Al-bāṭiya* is probably a corruption of the Latin *patena* or 'paten', a large and flat cup used especially for sacrifices.
17. Corvus is also called *al-khibā'*. It is the Raven that revealed the unfaithfulness of Coronis, who had become Apollo's lover.
18. The text on the constellations of Crater and Corvus in the Munich Qazvīnī is found in the same lines because, in this case, it has been copied in two columns on fol. 24r, lines 18–22: Crater's text is on the right, Corvus on the left.
19. Centaurus is also called *al-zilmān*.
20. Wehr 1976: *shamrūkh*, pl. *shamārīkh*, 'stalk with date cluster, branch stripped of its leaves, little stick'.
21. Lupus, also called *al-dhi'b* ('the Wolf'). Its iconography, however, always shows it as a lion. It represents Lycaon, the King of Arcadia, who was transformed into a wolf and killed by the Centaur.
22. Published in Carboni 1988–9: pl. V (above).
23. Only the illustration of Gabriel survives, the text having been on the preceding missing folio. Gabriel is the bearer of the Revelation to the Prophet, his guide during his ascension (*mi'rāj*) and his constant advisor and helper. In the Qur'an he is only named three times as Jabrā'il but is probably to be identified with *al-rūh*, 'the Spirit', mentioned instead several times. See Pedersen, 'Djabrā'il', *EI2*.
24. Carboni 1988–9: pl. V (below).
25. Michael is the archangel to the left of Allah, Gabriel being to His right. He is called Mikāl in the Qur'an, whereas Mikā'il is the angel custodian of the sea of the Seventh Heaven in al-Kisā'i's *Qīṣaṣ al-anbiyā*. It is likely that al-Qazvīnī, who calls him Mikā'il and places him as the custodian of the sea of fire in the Seventh Heaven, has confused the two angels. See Wensinck, 'Mikāl', *EI2*.
26. Abū Ishāq ibn Maṭī' ibn Ḥaysū' (or Ḥaynū') Ka'b al-Aḥbar was a Yemenite Jew who converted to Islam probably in 17/638. He is considered as the oldest authority on Judeo-Islamic matters and the initiator of the traditions concerning 'Umar ibn al-Khaṭṭāb. He died in 32, 34 or 35/652–3. See Schmitz, 'Ka'b al-aḥbar', *EI2*.
27. Carboni 1988–9: pl. IV and Berlekamp 2011: fig. 33.
28. 'Izrā'il or 'Azrā'il has been appointed by Allah the Angel of Death because of his 'pitilessness' (*qillat al-rahma*) and he is also the master of death. Azrael keeps a scroll on which are the names of all mankind, but he does not know the date of death of the individuals. Allah drops a leaf from the tree below His throne on which the man's name is written. Azrael reads his name and his task is to separate the person's

- soul from his body after forty days. One of the traditions mentions that he pierces men with a poisoned spear (he is in fact holding a spear in the illustration); see Wensinck, 'Izra'il', *El2*.
29. Abū Muḥammad Sulaymān b. Mihrān al-A'mash, traditionist and Qur'an reader from Kufa (60–148/679–765). He won a place among the Fourteen (best Qur'an reciters of the time). He is quoted as an authority for Ibn Mas'ūd, Anās and Mujāhid (for this last see cat. 122). See Brockelmann and Pellat, 'al-A'mash', *El2* and Jeffery 1937: 314.
 30. Al-Rābi' ibn Khuthaym (also called al-Khaythām) al-Thawrī (d. 64/683–4) was one of the early Kufan Qur'an readers. Ibn Mas'ūd was probably one of his teachers. See Jeffery 1937: 287.
 31. A strong wind was submitted to Solomon, according to the Qur'an (23: 81 and 38: 36).
 32. The very same story, except for the fact that the man flees to China instead of India, is told in the Arabic ms. 264 in the University of Leeds, dated 1062/1642. The title of the manuscript is *Kitāb daqā'iq al-ḥaqā'iq* and its likely author is Abū al-Layth al-Samarqandī (d. 373/983). See Macdonald 1964: 485 and 1964a: 285–7. Another codex with the same title is in Paris, Bibliothèque nationale, suppl. Persan 174. It was composed at Aqsaray in 670/1271 by Nāṣir al-Dīn Muḥammad ibn Ibrāhīm 'Abdallāh al-Sijistānī al-Šiwāsī. It includes talismanic treatises and descriptions of the angels, and is illustrated with miniatures related to Byzantine painting. See Blochet 1926: 72–4; a study on its illustrations is Barrucand 1991; see also Pancaroğlu 2004: 161 and fig. 12.
 33. Wehr 1976 gives *karūb* or *karūbī* as 'cherub'. In the Qur'an these angels are called *al-mukarrabūn*, 'those brought near [God]' (4: 170 and 21: 20), but al-Baydawī also names them *al-'alawīyyūn* and *kar-rūbiyyūn*. See Macdonald, 'Malā'ika', *El2* and Carboni 1988–9: note 29. The same angels are quoted in the ms. 264 in the University of Leeds (see above, note 32) as originating from Michael; the translation by Macdonald 1964a: 301 reads: 'From [Michael's] head to his feet were hairs of saffron and his arms were of topaz. On every hair were a thousand thousand faces and in every face a thousand thousand mouths. In every mouth a thousand thousand tongues; on every tongue a thousand thousand eyes weeping, weeping in every single eye. There fall from every eye seventy thousand drops. From every drop there is created an angel in the likeness of Mikā'il. Such angels praise God Most High right up to the day of Resurrection. They are known as *al-karrūbiyyūn* (the Cherubim) and they are the helpers of Mikā'il, entrusted over the rains and vegetation, the provisions and fruit.' As a matter of curiosity, this would make it a total 7×10^{22} angels known as *al-karūbiyyūn*.
 34. The other six illustrations and the related text have been lost here. According to al-Qazvīnī's text, the following angels (in ascending order) are in the shape of Eagles, Falcons, Horses, Wide-eyed Houris, Children and Men. Their importance is increased Heaven after Heaven by the fact that they get closer to the presence of God who abides in the outer sphere. For further information on their iconography see Badi'ee 1978a.
 35. 'Abd Allāh ibn al-'Abbās, also called Ibn 'Abbās, is considered one of the greatest scholars of the first generation of Muslims. He was born three years before the *hijra* and died in 68/688. He was involved in political matters and is regarded as the father of Qur'anic exegesis. See Veccia Vaglieri, 'Ibn 'Abbās', *El2*.

36. It is called *nawrūz*, the first day of the first Persian month of *farwardīn*.
37. The eleventh Persian solar month.
38. Steingass 1930: 'name of the 30th day of every solar month of the ancient Persian calendar'.
39. Steingass 1930: 'a vessel used in baths for pouring water over the head and body; a bucket'.
40. Firūz was a Sasanian king (457–83 AD); successor of Yezdigird II, he gained the throne after defeating his brother Hormisdas. He died during a disastrous final battle against the White Huns in 483.
41. Firūz was Zoroastrian, a religion that considers fire a sacred symbol. Fire-temples were built and a few fire-altars still stand in Iran: see for example Sykes 1921: pl. opp. 105 (taken from M. Dieulafoy, *L'art antique de la Perse*), reproducing the altars at Nakhsh-e Rostam.
42. This story seems confirmed by Sykes 1921: 436, 1: 'His [Firūz's] administration was renowned for its high standard of efficiency, and it is recorded that, although at this period the Persian Empire from the Oxus to the Tigris suffered from a terrible famine lasting for several years, supplies were imported from every quarter by the capable monarch and there was no loss of life.'
43. The Arabic name is formed by the word *qaws* ('bow') and *quzah* (sing. *quzḥa*, 'a coloured band of yellow, red and green'). See Fahd, 'Ḳaws kuzah', *El2*.
44. Zābaj is the most recurrent name among the islands reported by the Arab geographers describing Southeast Asia. This island is quoted by the great majority of the Arab geographers of all periods: Ibn Khurdādhbih, Sulaymān, the *Akḥbār al-ṣīn wa al-hind*, Ibn al-Faḳīh, Ibn Rusta, Abū Zayd al-Sirāfi, Buzurgh ibn Shahriyār, al-Mas'ūdī, Ibn Serapion, al-Maqdisī, Ibrāhīm ibn Wāṣif Shāh, al-Bīrūnī, al-Idrīsī, Yāqūt, Ibn al-Bayṭār, Ibn Sa'īd, al-Dimashqī, al-Nuwayrī, Abulfidā, Ibn al-Wardī, al-Bākūwī, Ibn Iyyās, Abū al-Faḍl and al-Marwāzī. The name Zābaj is always connected to its ruler, the *mahrāj*, and much confusion has arisen in describing it as a town, an island, a sea and as a whole empire of *mahrāj*. However, it seems that the commonly accepted idea among the earlier writers is that Zābaj is the name of one of the islands of the empire, probably the most important and where its capital (also Zābaj) was found. Other islands belonging to the *mahrāj* are Kalāh, Sribūza, Rāmnī (cat. 27–9), Bartā'iyl (cat. 39), Qaqūllā, Wāqwaq (cat. 31) and others. As for the correct spelling of its name, the Arab writers are unsure of its reading and it is not unusual to come across the word without diacritics, as is the case in our manuscript. The spelling Zābaj, however, already occurs in the *Akḥbār al-ṣīn wa al-hind* (c. 850 AD) and this reading is generally accepted presently. A reliable identification of Zābaj is difficult. It has long been considered Java (Lassen 1858, van der Lith 1883–6 and Freeman-Grenville 1981) or Sumatra (Ferrand, 'Zābaj', *El2*, Reinaud 1845 and Hourani 1951). It is likely that when the early writers mention *mahrāj*, they refer to the Buddhist Sailendra rulers of Southeast Asia, who seem to be the only ones to have adopted this title before the end of the tenth century. As Tibbetts points out (1979: 107) the Sailendras first appeared in Java and became the predominant dynasty there by about 760. By c. 860, a younger branch of the family had established itself on the throne of Sri Vijaya at Palembang (Sumatra). His conclusion is that 'any Arab writer who

used sources dated before 860 refers to the kingdom of the Maharaja dealing with the Sailendras in Java, while any Arab writer using sources originating from the 10th century onwards (when the dynasty had lost the control of the island) would be talking about Sumatra'. Al-Qazvīnī quotes Ibn al-Faqīh (beginning of the tenth century) as his authority, therefore he could refer to either Java or Sumatra according to Tibbetts. However, al-Qazvīnī obviously had access to later sources so the later identification of the island with Sumatra seems to be more likely.

45. In his *Kitāb al-buldān*, written c. 289–90/902–3. Ibn al-Faqīh was born in Hamadan but nothing is known of his life and his only surviving work is in an abridged form, which was probably completed by Abū al-Ḥasan 'Alī ibn Ja'far al-Shayzārī, who altered the original structure of the text.
46. Only the first part of the text was copied in the Munich Qazvīnī. The second part, which is relevant to the illustration in the London manuscript, was omitted.
47. Civet was an important and sought-after product from Far Eastern countries in the Middle Ages.
48. The name of this mountain is found neither in al-Qazvīnī's geographical work *Āthār al-bilād* nor in Yāqūt's *Mu'jam al-buldān*.
49. This is one of the many authors quoted by al-Qazvīnī whose work has not survived and we know his name only through later authors. He is unlikely to be identified with Zakariyā ibn Yahyā ibn Muḥammad ibn al-Sājī, a jurist from Basra who died in 919–20, as listed in Dodge 1970, I: 523 and II: 1090.
50. Al-Qazvīnī often quotes al-Rāzī in this section of the book. The geographical treatise which he refers to, however, is still unidentified. See Kowalska 1966: 79–80. Al-Rāzī is regarded as the greatest physician in Islam, and wrote several treatises on medicine; he was also an alchemist and a philosopher, and was largely translated into Latin in the late Middle Ages. He was born in 250/864 and died in 313/925 or 323/934–5 after spending most of his life in Baghdad and many other courts. See Kraus and Pines, 'al-Rāzī', *ELI*.
51. The Camphor tree is dealt with at cat. 171.
52. The Arab geographers mention this island very often: Ibn Khurdādhbih, the *Akhbār al-ṣīn wa al-hind*, Sulaymān, Ibn al-Faqīh, Abū Zayd al-Sīrāfī, al-Mas'ūdī, al-Bīrūnī, Ibrāhīm ibn Wāṣif Shāh, al-Idrīsī, Yāqūt, Ibn al-Bayṭār, Ibn Sa'īd, al-Dimashqī, al-Nuwayrī, Ibn al-Wardī and al-Bākūwī. Its various forms are Rāmī, Rāmnī and Rāmin and it is generally described as the first island encountered east after leaving Ceylon. According to other geographers it is bordered by two seas – Harkand (Bay of Bengal) and Salahit (Strait of Malacca) – therefore the possibility has been suggested (Tibbetts 1979: 139) that the earlier Arab geographers included the whole of Sumatra in Rāmnī at the time when Zābaj is to be identified as Java. As for later times, Rāmnī is perhaps one of the small islands south-west of Sumatra and south of the Island of Nias (see the map in Hourani 1951). It has also been linked to the medieval Lambri, a place north-west of Sumatra near the present Banda Atche (Arioli 1989: 117).
53. Both the Camphor tree and the Rhinoceros are also found on the same unnamed island by Sindbad during his Second Voyage in *The Thousand and One Nights* (Burton 1885–6, VI: 20–1, 545th night).

- The animal called *karkadann*, the Rhinoceros, is also discussed by al-Qazvīnī in the section on the animal kingdom (cat. 277).
54. The name Silā or Shilā for Korea derives from the Silla dynasty which ruled over North Korea until 935 AD. They had frequent relations with China. See Arioli 1989: 113 and Ferrand 1914.
 55. The archipelago of Wāqwāq is extremely difficult to locate since the Arab writers on the Indian Ocean were more interested in describing the stories related to it rather than its geographical position. It is mentioned by Ibn Khurdādhbih, al-Yaʿqubī, Ibn al-Faqīh, Buzurgh ibn Shahriyār, Ibrāhīm ibn Wāṣif Shāh, al-Birūnī, al-Idrīsī, Yāqūt, Ibn Saʿīd, al-Dimashqī, Ibn Baṭṭūṭa, Ibn al-Wardī, al-Bakūwī, Ibn Iyyās, Sīdī ʿĀlebī and *The Thousand and One Nights*. It seems to have been considered by the geographers as a sort of *finis terrae* placed somewhere in the Far East. This fact has led to three different theories regarding its location: it was an island either in Southeast Asia, or off the coast of East Africa or Japan. Ferrand, rejecting De Goeje's theory of Japan, came to the conclusion that there were two distinct Wāqwāq islands among the Arab geographers, one to be identified with Sumatra, the other with Madagascar (Ferrand, 'Wākwāk', *El2*; Ferrand 1932). His theory, however, is obsolete according to Tibbetts (1979: 171–2), who agrees with Devic and Lane who make Wāqwāq some ill-defined place in Southeast Asia. It is worth mentioning that the Arab geographers often had a confused idea of the distinction between the Chinese Sea, the Indian Sea and the Sea of Zanj (Zanzibar) in East Africa. If one accepts that it was not a mythical island, its most likely location must be somewhere in Southeast Asia, south-east of Sumatra and Java (see the map in Hourani 1951). The story of the naked queen ruling a female population and of the fabulous trees maturing naked girls as fruit who produce the sound 'Wāq Wāq' are also mentioned by al-Qazvīnī. These stories became popular also among story-tellers and in folk-tales. Illustrations in the *Book of Curiosities*, Oxford, Bodleian Library, ms. Ar. C. 90, fol. 27r (Savage-Smith and Rapoport 2007) and in the *Kitāb al-bulhān*, Oxford, Bodl., Or. 133, fol. 41v show the girls growing from the tree (Carboni 1988: 85). As a rule, in the manuscripts of the *'Ajā'ib al-makhlūqāt* only the story of the queen among her slaves is illustrated, although the Istanbul Qazvīnī follows the 'heads growing from the tree' iconography (fol. 47v).
 56. This is one of the oral sources quoted by al-Qazvīnī.
 57. In the early manuscripts of the *'Ajā'ib al-makhlūqāt* the name of this island can be read as B[ī]nān (in the Munich Qazvīnī, fol. 32r, and in the present manuscript. In al-Qazvīnī's geographical work *Āthār al-bilād* this island is not mentioned). Other Arab geographers generally use the name Niyan (Sulaymān, the *Akhbār al-ṣīn wa al-hind*, Buzurgh ibn Shahriyār, al-Idrīsī, Rashīd al-Dīn and Ibn al-Wardī) which differs only in the diacritics. The identification with the Island of Nias, off the west coast of Sumatra, just one degree above the equator, seems likely (Tibbetts 1979: 150). A second possibility is the identification with the Island of Bintan, opposite Singapore, which is quoted only by Ibn Saʿīd, a contemporary of al-Qazvīnī. The two islands beyond Nias described in cat. 33 could be the islands of Batu, about two degrees south of Nias. The islands were still famed in the late nineteenth century because of the head-hunters who lived there: they are probably

- the cannibals mentioned by al-Qazvīnī (Arioli 1989: 136, quoting E. Modigliani, *Un viaggio a Nias*, Milano, 1890: 210).
58. In Arabic *dhirā'*, originally the part of the arm from the elbow to the tip of the middle finger. The legal cubit (*al-dhirā' al-shar'iyya*) is today 49.8 cm, the same length as the Egyptian hand cubit, but many measures were used in the Middle Ages in different regions. It is unclear which cubit al-Qazvīnī is referring to here. See Hinz, 'Dhirā'', *El2*.
 59. This island is not identifiable. It is also called Ṭawarān and Ṭawarāq. It is reported for the first time by Ibn Wāṣif Shāh (c. 1000). Ibn al-Wardī mentions it after al-Qazvīnī as Aṭūrān. Tibbetts (1979: 56) reads it Aṭawrān (= Ṭawarān) (see also Arioli 1989: 147). The reference to Alexander mentioned in the text is present in the Pseudo-Callisthenes: 'Then [...] we came to a verdant place where there were giantlike wild men [...] barrel-chested, hairy, and reddish colored. And they had faces like lions' (Wolohojan 1969: 113).
 60. This work is an unidentified compilation used by al-Qazvīnī as one of his major sources. See Kowalska 1967.
 61. This is probably the correct spelling of the name, with the meaning of 'flowing, liquefaction'. Sayalān is also another name for Ceylon. *Silān* is the 'garnet stone'. See Wehr 1976 and Mehren 1964: 212.
 62. The identification with the Dugong seems likely according to the description of this sea animal: it is given by al-Ma'luf 1932: 88 and 122. Al-Dimashqī calls this fish *laṭam* and adds that it always lives on the surface of the water (Mehren 1964: 212). Scientific names of fish and sea animals in this chapter are taken from Allaby 1985.
 63. The story of the fish which turns into a hard stone when it leaves the water is usually related to an island called Fansūr. See Tibbetts 1979: 56, Mehren 1964: 212 and Arioli 1989: 111.
 64. Stories concerning snakes and dragons are common among the Arab geographers writing about the Indian Ocean, and they often occur in *The Thousand and One Nights* (Burton 1885–8, VI: 28–9, 548th night, Third Voyage of Sindbad). This story probably describes a Python. For a discussion on the terms *hayya*, *tinnīn* and *thu'bān* (cat. 90, 92, 332 and 335) see the note under the text of cat. 92.
 65. Barṭā'iyl is identified by some writers as one of the islands belonging to the empire of *mahrāj* (see Zābaj). It is probably a fictitious name and no identification is possible. The islands of Riau or Banda, east of Sumatra, have been suggested because of the association with the meaning 'noisy' (Tibbetts 1979: 178–9). Al-Qazvīnī mentions another 'Island of noise', *jazīrat al-dawdā*, in the Sea of Zanj (fol. 41r). Bali has also been suggested, but it is unlikely that when this island is mentioned for the first time by Ibn Khurdādhbih (c. 850) the Arab navigators had reached as far as east of Java. Other possible identifications include an island in the Sea of Banda (Moluccas) and a small island in the river Perak (Arioli 1989: 125–6). Al-Qazvīnī also gives the information that the island has inhabited mountains where sounds of timpani and drums can be heard all the time and the faces of those people resemble leather shields. Tibbetts (1979: 178) thinks that people wearing masks could represent dancers of the traditional music of Java and other Indonesian islands. It is also reported that the Antichrist (*al-dajjāl*) lives there and that invisible people traded in cloves with merchants. Al-Qazvīnī quotes Ibn al-Faqīh as his authority for the trade of cloves. In al-Marwāzī the same story is told of people leaving

- the cloves overnight on the shore and then disappearing; the following day the merchants leave the money according to the quantity of the cloves; if the people are satisfied with the bargain, they take the money overnight so that the merchants can collect the cloves in the morning. Al-Marwāzī calls this the 'Island of Spices', *jazīrat al-ʿaṭar*, perhaps to be identified with the Moluccas, which were important producers of cloves in early days. Al-Qazvīnī has probably confused Barṭaʿyīl with the Island of Spices.
66. At this point the text of the Island of Salāmiṭ is found although no space was left for a painting, therefore this text is not illustrated. Non-illustrated text throughout heavily illustrated sections occurs sometimes throughout the manuscript. This island is mentioned by Ibn Khurdādhbih, the *Akhbār al-ṣīn wa al-hind*, Ibn al-Faqīh, Ibn Rusta, al-Masʿūdī, al-Idrisī, Ibn al-Bayṭār, al-Nuwayrī, al-Dimashqī, Ibn al-Wardī, al-Bakūwī and *The Thousand and One Nights*. It generally appears as Salāhiṭ. Tibbetts (1979: 145) concludes that it is 'presumably part of the Eastern coast of Sumatra between Aceh (Diamond Port) and Indragir on the coast of the Malay peninsula opposite. In the area of Bengkalis on the Sumatran coast there are several swampy islands divided one from the other by straits each of which is termed *selat* followed by a proper name.' It has also been identified as the southern part of the peninsula of Malacca by Arioli 1989: 139.
 67. This is obviously a mythical place, probably connected with the story of the Island of the Sagsār people, which is mentioned twice later in the manuscript (cat. 70–1 and 350). The island of the Sagsār is found in the Sea of Zanj. The connection with the figure of Alexander suggests that al-Qazvīnī is right in locating this island in the Indian Ocean, whereas other authors place it in the Sea of Champa in Southeast Asia. See Arioli 1989: 151–2.
 68. The Island of 'Thulth' [?] is not illustrated. Thulth seems its only possible spelling, meaning 'one third'; the same is in the Munich Qazvīnī (fol. 62v: 1–3). It is described as a group of three islands: on one of them the sun shines all day, on the second a violent wind always blows, on the third it rains all the time. Al-Dimashqī also mentions this island (Mehren 1964: 199–200). Arioli (1989: 127) translates the name as 'The Three Islands'.
 69. The term 'Jāba' adds much to the confusion over the identification of Java and Sumatra among the early geographers. It is already mentioned by Ibn Khurdādhbih (ninth century). Other authors mentioning this island are Ibrāhīm ibn Wāṣif Shāh, al-Idrisī, Ibn al-Wardī and al-Bakūwī. In the early Islamic period it should be identified with Sumatra together with Rāmnī (cat. 27–9), while Zābaj (cat. 21–6) should be Java in the same period. Tibbetts suggests that 'all the geographical evidence for Jāba [...] points to a place [and not an island] on the east coast of Sumatra' (1979: 110). After about the middle of the ninth century the names of the two islands of Rāmnī and Jāba were often exchanged, with continuous confusion over the names in later times.
 70. The reference to 'men without heads, and others whose eyes and mouth were on their chest' is already found in Latin and Greek literature in Pliny and in the Romance of Alexander (Arioli 1989: 140 and Wolohojan 1969: 115). See also cat. 358.
 71. The Island(s) of Lankālūs (Nicobars) are not illustrated. Scholars

- agree on the identification with the Nicobar Archipelago following the descriptions given by the Arab geographers. It can also be spelt as Lankabālūs, Lanjabālūs, Likālūs and Lankyālūs. It is mentioned by Ibn Khurdhādhbih, the *Akhbār al-ṣīn wa al-hind*, Ibn Masāwīh, Sulaymān, Ibn al-Faqīh, al-Masʿūdī, Buzurg ibn Shahriyār, al-Bīrūnī, al-Idrīsī, Ibn Saʿīd, al-Dimashqī, Ibn al-Wardī and al-Marwāzī.
72. This is another mythical island connected with the legends of Alexander, as is the case with the Island of the Palace (cat. 40). No identification or location is possible for this island. It is also mentioned by Ibrāhīm ibn Waṣīf Shāh and al-Dimashqī.
 73. This word usually means the journey of the Prophet Muḥammad to the seven Heavens.
 74. See also the Swallow Fish (cat. 84).
 75. The Blessed Bird Called 'Fānūn' [?] is not illustrated. The painter has made a mistake in the present page. The calligrapher had correctly left five blank spaces for the miniatures of five sea animals dealt with in the text. In order these are: the Blessed Bird Called 'Fānūn' [?]; the Human-headed Fish; the Fish Swimming on the Surface of the Sea; the Fish That Is Able to Set Fire; and the Flying Fish. The painter, however, ignored the first animal – for which there is no title – and started to paint the second (the Human-headed Fish) in the space left for the first. Consequently, he was puzzled as to which fish to draw on the fifth blank space since no text corresponded to it. The result is a red fish which simply comes from the painter's imagination.
 76. The Cairo printed edition gives *mārmāhī*, which is commonly translated from the Persian as 'Eel', with the meaning of 'snake-like'. The name *gāw māhī*, 'cow-like', seems more acceptable for the equation 'column = horn'. The description is reminiscent of the characteristics of the stingray, which is, however, more likely to be the sea animal described under cat. 61.
 77. The Island of Khārik is not illustrated. The island of Khark or Kharg, forty miles north-west of Bushire, was an important commercial port of call for ships sailing from Basra to Qays on the way to India. See Le Strange 1903: 73 and 1966: 261.
 78. Ethé (1868: 476) reports that Jāshik, according to Yāqūt's *Marāsid al-iṭṭilāʿ*, is between the island of Qays and Oman. The island is perhaps to be identified with Qishm (Le Strange 1966: 74 and 261, quoting Yāqūt), the largest island of the Straits of Hormuz, which was given various names by the geographers, among them 'Long Island' (*al-jazīra al-tawīla*), Banī (Ibn) Kāwān, Abārkaḥān and Abārkumān (Le Strange 1966: 261). Presently, however, the city of Jask – which can perhaps be connected with Jāshik – lies on the Iranian coast of the Gulf of Oman. Al-Dimashqī calls the island, as described with the very same words, by the generic name of Fāris instead of Jāshik and locates it just in front of the coasts of Khuzistan (Mehren 1964: 224).
 79. Also known as Kish, an island of the Persian Gulf near the Iranian coast, opposite the modern town of Band-i Charak. After the decline of the town of Siraf in the tenth century, it became one of the most important ports of call for the ships trading in the Indian Ocean.
 80. The area of the Straits of Hormuz and the coast of Oman has had a reputation for piracy for a long time. Miles (1966: 324–5) reports that as late as 1815 pirates intercepted the trade between India and Mokha.

After that, a few more episodes of piracy took place in that area in 1824, 1828, 1841 and 1845, but eventually it was eradicated.

81. This island is not identifiable but is perhaps the modern Shaykh Shu'ayb or one of its neighbouring islands. The correct spelling of its name is uncertain. The text reads: *wa minhā jazīrat kandūlāwri wa anā shākk fi anna hādhihi al-jazīra fi hadhā al-baḥr*: 'And among them the island of Kandūlāwri, [but] I doubt that this island is found in this sea.' Muṣṭawfī al-Qazvīnī, however, apparently misread al-Qazvīnī's text and wrote of the three islands of Kand, Lāwūr and Anāshāk (!) (see Le Strange 1903: 234 and 1966: 74). The reading of our manuscript (fol. 37v: 4) seems nonetheless quite clear, and al-Qazvīnī also uses the singular *al-jazīra*, 'the island', rather than the plural used by al-Muṣṭawfī. Al-Dimashqī calls it Kandūlay (Mehren 1964: 113). In al-Qazvīnī's text, Kandūlāwri seems to be the full name for this island; however, the name could be an agglutination of two localities, namely Kand and Lāwār. The geographical name of Kand was not traceable but the island of Shaykh Shu'ayb is often mentioned as Lāwān, Lār or Lāwār (see Le Strange 1966: 261 and al-Mubadīr 1981: s.v. '*jazīrat shaykh shu'ayb*'). A second unlikely interpretation is a connection with the *baḥr lārāwī*, 'the Sea of Larawi', mentioned by al-Mas'ūdī and al-Dimashqī as 'the sea after the sea of Fars' or the Gulf of Oman and the portion of the Indian Ocean off the coasts of Pakistan. See the detailed map no. I-270 B-2 of the Department of the Interior United States Geological Survey, Miscellaneous Geological Investigations.
82. The word clearly reads *fuṭr* (mushrooms) in the Munich and London manuscripts whereas it has turned into *quṭn* (cotton) in later texts including the printed version in Cairo. On the ambergris taken from the Spermwhale, see the note in the text of cat. 73.
83. The 'Chronology of Ancient Nations' (*Al-āthār al-bāqiya 'an al-qurūn al-khāliya*) (al-Bīrūnī 1878) is al-Bīrūnī's first great work. It deals with the subject of calendars and eras, and mathematical, astronomical and other matters. The work was dedicated to the Ziyarid sultan Abū al-Ḥasan Qābūs ibn Washmgīr Shams al-Ma'ālī and was written in Gurgan. The author is the celebrated Abū Rayḥān Muḥammad ibn Aḥmad al-Bīrūnī al-Khwārizmī, one of the greatest scholars of medieval Islam. He was one of the most original and eclectic writers, equally at ease with mathematics, astronomy, physics, natural sciences, geography, history, chronology and linguistics. He was born in a suburb of Kath, capital of Khwārizm, in 362/973, and died probably in Ghazna shortly after c. 442/1050. See Boilot, 'al-Bīrūnī', *El2*. See also note 2 in Chapter 4.
84. Serjeant (1968: 509) lists the *jwāf/yiwāf* among the commonest fish caught in Bahrain. In note 79, he quotes Jayakar's edition of al-Damīrī's *Kitāb al-hayawān*: 501, where the fish is called *jwāf*, and Ibn al-Athīr, *al-Nihāya*, I: 219, where the *jwāfah* is a poor-quality fish.
85. In the Munich Qazvīnī, the text on the fish called *asyūr* and the fish called *jwāf* are under the same heading.
86. Al-Ma'luf (1932: 164) calls this fish *tarastūj* and identifies it with the Red Mullet, a sort of Goatfish. The transliteration *barastūj* is given by Devic 1883: 218.
87. It is the east coast of Africa. The earliest mention of Zanj in Africa is in an excerpt from the astronomer al-Fāzārī around 780. Among the Arab

- geographers, Ibn Khurdādhbih is the first to mention it and is followed by almost all the later authors. The name, with the original meaning of 'black people', is applicable from the East African coast opposite the coast of Aden to the Tropic of Capricorn. See Devic 1883: 24–34 and Tolmacheva 1986: esp. 105–6.
88. Devic (1883: 218) observes that the *barastūj* goes to Basra twice a year in order to live in fresh water for a while after a long time spent in the salt water of the ocean.
 89. The Shark includes several genera with sixty-one species of small sharks; the larger sharks are of the *Fam. Carcharhinidae, Ord. Lamniiformes*.
 90. Published in Carboni 1988–9: fig. 3 and Berlekamp 2011: fig. 28. A similar story is reported in *The Thousand and One Nights* by Sindbad the Sailor during his Second Voyage (Burton 1885–6, VI: 15–17, 543rd night). In Sindbad's story, the gigantic bird is called Rukh.
 91. Al-Qazvīnī does not name this bird. However, it is obviously related to the stories on the Rukh and the 'Anqā birds mentioned by the Arab geographers in many of their accounts. For the 'Anqā, see cat. 313; for the Rukh or Roc, also mentioned in *The Thousand and One Nights* and by Marco Polo, see respectively the previous note, Polo 1928: 206 and Arioli 1989: 109–10.
 92. The Island of Tiran is not illustrated. It is the modern island of Tiran at the mouth of the Gulf of Aqaba leading into the Red Sea. Arioli (1989: 164) names this island Taran.
 93. This island is not identifiable.
 94. For the Antichrist, *al-dajjāl*, see also the island of Bartā'iyl (cat. 39).
 95. On Tamīm al-Dārī see Mehren 1964: 199 and note 3. Al-Dimashqī reports that Tamīm al-Dārī gains information from the Antichrist himself about the Day of Judgement, and does not mention any animal living on the island.
 96. Devic (1883: 188) writes that mother-of-pearl comes from the carapace of some turtles. According to his source, this fish bears a thousand eggs in its abdomen.
 97. The same fish is mentioned by Devic (1883: 218).
 98. This fish may be the Sea Cow, *Rhytina stelleri*, according to al-Ma'luf 1932: 207.
 99. For the term *zanj*, see above in the text of cat. 57. The 'Burnt Island' (*al-jazīra al-muḥṭaraqa*) is not illustrated. It is so called because every thirty years a star (a comet or a meteorite) sets fire to everything that is found on that island. See also Mehren 1964: 219 and Devic 1883: 111. The Arabic word *muḥṭariqa* ('burning') is used by al-Bīrūnī to name a star in conjunction with the Sun at latitude 0°. See Bausani 1977: 124 and Arioli 1989: 128–9.
 100. This is the same island (*jazīrat al-dawḍā'*) mentioned by al-Idrīsī, who tells stories about camphored water and the fire on the mountain (see Devic 1883: 104–5). Al-Dimashqī calls it Jāna and mentions only a story about the snake (Mehren 1964: 219–20). Al-Dimashqī does not mention – as does instead al-Qazvīnī – the fact that the snake appears once a year. However, he describes in detail how it is caught by filling its hole with the smoke of burnt storax, a description that is not found in al-Qazvīnī.
 101. The story is present in *The Thousand and One Nights* and in Ibn al-Wardī. Burton 1885–6, VI: 66, 562nd night, Sixth Voyage of Sindbad:

- [. . .] and a bed covered with the skin of the serpent which swalloweth the elephant, which skin hath spots each like a dinar and whoso sitteth upon it never sickeneth.' In the village of Kirpinar in West Anatolia water snakes are still used to heal wounds; it is believed that if a live snake is placed on the diseased part and it remains motionless for at least five minutes, the pain is absorbed. See 'Mortal coils' in *The Correspondent Magazine*, 18 November 1990; thanks to Dr Geoffrey King for this information.
102. In Arabic *jazīrat al-ʿūr*. This story, as well as the tales on the cynocephali or dog-headed people (see below), is among the most ancient of myths, being already present in the Greek literary tradition. Al-Qazvīnī, al-Dimashqī, Ibn al-Wardī and al-Bākūwī report the same story as Aristotle in his *History of Animals*, VIII: 12. Aristotle is the first author to report that the story is not fictitious but occurs every year at a place near the source of the River Nile. The same story is present in Homer's *Iliad* (III: 3–6) and in Pliny (VII: 26). See Scobie 1975.
 103. Probably another oral source of al-Qazvīnī's. He is unlikely to be identified with Abū Yūsuf Ya'qūb ibn Ishāq al-Kindī, the ninth-century 'Philosopher of the Arabs', who is not reported to have written on geography.
 104. Called Aristūṭālīs in Arabic, he is the famous Greek philosopher Aristotle of the fourth century BC. He was considered by Islamic scholars and writers as 'the Philosopher' *par excellence*. His works became known almost in their entirety through their Arabic translations. Here al-Qazvīnī refers to his *De naturis animalium*, translated by Yuḥannā ibn al-Bīṭriq with the title *Ṭibāʿ al-ḥayawān*. See Walzer, 'Aristūṭālīs or Aristū', *El*2.
 105. The story of the dog-headed cannibals or cynocephali probably has a Greek prototype and was well-known in medieval times in both Europe and the Islamic world. For its diffusion in Europe, see Wittkower 1942: 175. See also Wolohojan 1969: 146, where the dog-headed men are mentioned together with the people with their faces on their chest (see cat. 41). These people are also quoted by Marco Polo as living in the Andamans (Polo 1928: 176). The Soft-legged People live on the same island as the cynocephali. They are the Himantopodes of the Greek tradition. However, al-Qazvīnī was also probably more directly influenced by the story of the *shaykh al-bahr* ('The Old Man of the Sea'), told in the fifth voyage of Sindbad in *The Thousand and One Nights*, whose list of events is identical (Burton 1885–6, VI: 50–3, 557th night, Fifth Voyage). The miniature of the Old Man and Sindbad is also present in the *Kitāb al-bulhān* (Oxford, Bodl., Or. 133, fol. 43r); see Carboni 1988: 87–8, pl. 46.
 106. From the description it does not seem to be the true Sawfish; however, all dictionaries give the same translation.
 107. Devic (1883: 216–17) thinks that this monstrous fish is a sort of mythical cross between the Sawfish and the Whale, and identifies it with the terrible Serra of the medieval authors in Latin. Isidore of Seville attributes to it a *crista serrata*, a compact crest from which the name 'Serra' derives.
 108. Cape Minshar is also the name of a promontory east of Zanzibar. See Grosset-Grange 1977: 12.
 109. The general name of Whale belongs to all cetaceans, which are divided

into two suborders: *Odontoceti* and *Mysticeti*. This sea mammal is also mentioned by Sulaymān and in the *ʿAjāʾib al-hind* as *bāl*. It is otherwise called *tāl*, *fāl*, *wāl*. See Devic 1883: 191.

110. Ambergris, a waxy substance produced in the intestines of the Sperm Whale, was important in the trade between East Africa and the Persian Gulf and India. Valuable perfumes were obtained from it. Al-Andalusī calls this fish *ʿanbar*, identifying it with the ambergris (Ferrand 1925: 259). Ambergris is listed by al-Qazvīnī in his chapter on oily substances (fols 76v–77r). Al-Maʿluf (1932: 233) translates the animal called *ʿanbar* as the Sperm Whale, *Physeter macrocephalus*. Allaby 1985 gives the Sperm Whale as *Physeter catodon*, *Superfam. Physeteroidea*, *Ord. Cetacea*, *Subord. Odontoceti*. A description of the ambergris is also in *The Thousand and One Nights* (Burton 1885–6, VI: 60, 560th night, Sixth Voyage of Sindbad).
111. Namely the Mediterranean and the Black Sea. Since al-Qazvīnī mentions the Black Sea a few lines below, the island is probably to be located somewhere in the Sea of Marmara.
112. The story sounds like a corruption of accounts of the lighthouse of Alexandria and of the Colossus of Rhodes, two of the Seven Wonders of the ancient world.
113. The Island of Tinnis is not illustrated. Tinnis is located opposite Damietta on the Egyptian coast. It has been identified by Ferrand (1925: 230, note 4), who quotes Juynboll's edition of Yāqūt's *Marāʾid al-iṭtilāʿ*, t. I: CIV. Mehren (1944: 156) mentions a Lake Tinnis, in the middle of which lies the Island of Sinjar, and Yāqūt is quoted again, locating the lake near Damietta.
114. The text reads *anhār*, 'rivers', instead of *azhār*, 'flowers', but it is a mistake made by the copyist.
115. Al-Dimashqī mentions an 'Island of Death' where the trees and herbs are deadly poisonous, even if only sniffed (Mehren 1964: 187). The story probably originated in the Greek tradition, namely in the tale of the Lotus-Eaters in Homer's *Odyssey*: 'But any of them who ate the honey-sweet fruit of lotus was unwilling [...] to go away, but they wanted to stay there with the lotus-eating people, feeding on lotus, and forget the way home' (*Odyssey*, IX: 94–7; quoted from Lattimore 1965: 139). Herodotus, IV: 176ff. places the island of the Lotus-Eaters in the Gulf of Sirte (Privitera 1983: 188–9).
116. The Island of the Church of the Crow is mentioned by many geographers who often disagree as to its location. Al-Dimashqī writes that the island is near the coast of Sardinia (Mehren 1964: 187). Al-Idrisi locates it at Cape St Vincent in Portugal. See also Arioli 1989: 179–80. The Monastery of the Crow (*dayr al-ghurāb*) is also illustrated in the *Kitāb al-bulhān* (Oxford, Bodl., Or. 133, fol. 37r); Carboni 1988: 78–9, pl. 34.
117. The Andalusian traveller and collector of *ʿajāʾib* at the beginning of the sixth/twelfth century. He was born in Granada in 473/1080 and travelled extensively to North Africa, Egypt, Syria, Iraq, Central and Eastern Europe, and Khwārizm, until he died in Damascus in 565/1169–70. He wrote two important works on geography: *Al-muʿrib ʿan baʿd ʿajāʾib al-maghrib* and *Tuḥfat al-albāb wa nukbat al-ʿajāʾib*. See Ferrand 1925 and Lévi-Provençal, 'Abū Ḥāmid al-Gharnāṭī', *El2*.
118. For the talking crow and the bird called *zāgh*, see the note in the text of cat. 366–7.

119. This island is also called Jalita in present times and is about twenty-five maritime miles north-west of Cape Serrat along the Tunisian coast. It is mentioned by Abū Ḥamid al-Andalusī, Yāqūt and Ibn al-Wardī. It is described in A. Berard, *Description nautique des côtes de l'Algerie*, Paris, 1837 (as quoted by Ferrand 1925: 288), as the Island of La Galite. Ferrand (1925: 289) also quotes Lavaudan, *La Chasse en Tunisie*, 18–19: 'on sait qu'il existait dans l'île de la Galite des chèvres sauvages. Elles ont été entièrement détruites il y a une vingtaine d'années lors de la construction du phare de Galiton.'
120. The same story is told by al-Dimashqī, who states that the day is 24 July (Mehren 1964: 187). The island is also mentioned by Ibn al-Wardī.
121. The 'fish of Batrun' (a city in Lebanon) is not illustrated. The peculiarity of this fish is that one can read the words 'there is no God but Allah and Muḥammad is his Messenger' on its ears.
122. The blessed bird called *mārūz* is not illustrated. The name of this bird is illegible in the text, but the various editions agree on the name of *mārūz*. It is blessed because it is able to understand when a ship is going towards dangerous waters and to notify the sailors of the danger.
123. The later patch tries to illustrate the previous animal, the bird called *mārūz*. However, the original grass on the upper part of the painting suggests that water was once painted below it. The fact that the fish called the Old Jew lives in the water and the position of the painting beside its text makes it more likely that the original illustration once represented that fish rather than the bird *mārūz*.
124. Al-Ma'luf (1932: 161) identifies the *shaykh al-yahūdī* with the Mermaid or Dugong, already discussed at cat. 36. The description, however, does not seem appropriate in this case.
125. Mentioned also by al-Dimashqī and Ibn al-Wardī (Mehren 1964: 189).
126. Mehren 1964: 190. Al-Dimashqī states that it can live on both land and sea.
127. For the meaning of the 'two seas', see the note in the text of cat. 74.
128. Literally 'the Fish of Moses and Joseph'.
129. Also called Flatfish, the family includes more than a hundred species.
130. Sibṭa (Ceuta) is today an autonomous Spanish city opposite Gibraltar, seemingly in Morocco but technically sharing a western border with the North African country.
131. The story is taken from the Qur'an (18: 59ff.) and is also told by al-Dimashqī and Ibn al-Wardī (Mehren 1964: 190).
132. The Fish Which Resembles a 'Bulgharian' Cap is not illustrated. It is described as a fish with no head and eyes, whose abdomen looks like intestines, and is able to spray black ink which is used for writing. It is either a Squid or a Cuttlefish. Bulghār was the name of two states, one along the River Volga, the other along the Danube, which were founded in the early Middle Ages by Turkic peoples. The centre of the Bulgharian kingdom was formed by a triangle between the rivers Volga and Kama, and the country was located south of the confluence of these rivers. The population was divided into many hordes and groups, and they were partially subjected to the Khazars. The authority on the Bulgars is Aḥmad Ibn Faḍlān (also quoted by al-Qazvīnī as one of his sources; see cat. 362) who in 309–10/921–2 was the envoy of the caliph al-Muqtadir billāh to the lands of the Volga Bulgars. See Hrbek, 'Bulghār', *EI2*.
133. Cf. the fish *sayalān* (cat. 35).

134. *Fam. Exocoetidae* includes various genera of Swallow Fish and about 108 species. *Exocoetus volitans* is common in warm seas.
135. Cf. the Flying Fish (cat. 47).
136. Al-Maʿluf (1932: 27 and 107) gives the fish called *manāra* as the Finner, *Balenoptera musculus*. Fins, Humpbacks, Rorquals and Blue Whales are all of the *Fam. Balenopteridae*, *Ord. Cetacea*, *Subord. Mysticeti*.
137. The same story appears in Mehren 1964: 190. It is also mentioned in Ramusio 1979–88, in a story concerning Nearchus, the captain of Alexander's ship in the Indian Ocean (see Arioli 1989: 137). See also Burton 1885–6, VI: 11, 541st night, First Voyage of Sindbad.
138. Literally 'the sea of the Khazars'. The Khazars were a nomadic people from the South Asian steppes who flourished just before the Islamic period. The most important towns of their kingdom were Derbend, Balangar and Atil in the Volga delta. Their kingdom included at some stages Crimea and part of the Caucasus. The Arabs re-conquered Derbend in 95/713–14 and the importance of the Khazars declined in the ninth and tenth centuries. See Barthold and Golden, 'Khazar', *EI*2.
139. It is probably the island of Siyā Kūh, 'the Black Mountain', mentioned by Muṣṭawfī al-Qazvīnī (Le Strange 1903: 239).
140. The same story is told by al-Andalusī (Ferrand 1925: 269).
141. The Island of the Jinn is not illustrated. Its name is due to the fact that, although neither people nor wild animals live there, voices are heard which are said to belong to the jinns.
142. This island is obviously a replica of the Island of Jāliṭa (cat. 77).
143. Al-Qazvīnī is here mistaken in his quotation: Sallām al-Turjumān was only the interpreter of Ahmad ibn Fadlān during the latter's travels as the envoy of al-Muqtadir billāh to the King of the Volga Bulghārs in 309–10/921–2. Ahmad ibn Fadlān left an invaluable report of his travels (see the note in the text of cat. 362). For the Khazars, see above, note 138.
144. This is a shorter version of the same animal described at cat. 92.
145. This animal is not a fish but a mollusc of the Gastropodes. For the identification of the sea animals in this section the most useful source is al-Maʿluf 1932, while scientific names are mostly from Allaby 1985. A basic bibliography on the subject includes: Oman 1966, 1974 and 1984, Berra 1981, Webb, Wallwork and Elgood 1981, Nelson 1984, and Wheeler and Jones 1989.
146. Al-Qazvīnī makes a distinction between the animals called *tinnīn* (cat. 90 and 92), *thuʿbān* (cat. 332) and *hayya* (cat. 38 and 335). They are all large snake-like animals with terrifying attributes and great power. According to al-Qazvīnī, the *tinnīn* is born as a snake (*hayya*) living on the land, but when it grows too big it turns into a sea animal, a sort of ever-growing monstrous eel. The *hayya* seems to be only a large terrestrial reptile; however, it is also mentioned in the text with the name *tinnīn* (see cat. 335). Al-Qazvīnī therefore used *hayya* as a general name for large snakes whereas the *tinnīn* was a species of snake that turned into a sea animal when it grew. The *thuʿbān* (cat. 332) is close to the *tinnīn* in aspect but it can be described as a huge amphibian since it can live both on land and in the sea. It is clearly impossible to offer a satisfying identification for the three names: *hayya* will be translated generically as 'Snake', though its large size suggests the Python; *tinnīn* and *thuʿbān*, although possibly identifiable as

- oversized eels such as the Giant Moray (*Gymnothorax javanicus*), must be regarded as mythical animals stemming from the imagination of sailors and travellers; they will be translated respectively as 'Sea Dragon' and 'Dragon' in order to reflect this interpretation. In modern Arabic, the word *tinnīn* means 'tornado', 'vortex' (Lane 1863–93); the meaning probably originated from the story told in the *Kitāb 'ajā'ib al-hind*: when the sea-water becomes too warm, the *tinnīn* jumps into a cloud in order to find some relief; it is carried by the cloud high into the sky, but after the cloud has discharged all the rain it contains, the *tinnīn* falls either on land or sea (Arioli 1989: 118).
147. Al-Dimashqī tells a similar story concerning a type of whale living in the Black Sea (Mehren 1964: 193).
 148. Many species of freshwater Catfish and Wels belong to the *Ord. Siluriformes*, including the commercially important Giant Wels, *Silurus glanis*. Oman (1984: 103) lists under the fish called *jarri*: *Silurus glanis*, *Silurus triostegus* and *Citarias*, *Fam. Siluridae*.
 149. The correct spelling of this Persian word is *mār māhī*, literally 'Snake Fish'. Steingass 1930: 'an eel'.
 150. He was a prose writer, author of many works of *adab*, Mu'tazili theology and politico-religious polemics. Al-Jāhiz was born in Basra c. 160/776, and died in the same city in 255/868–9. About two hundred works are attributed to him, of which only thirty are preserved in their entirety. His best-known work is the *Kitāb al-hayawān* ('The Book of Animals'). See Pellat, 'al-Djāhiz', *El*2.
 151. The Catfish is not eaten by the shi'ites for three reasons: it has no scales; it is provided with large teeth; and it eats dead animals. This last peculiarity is mentioned by al-Qazvinī. The tradition goes back to the Caliph 'Alī who cursed this fish one day when, while going to the river to perform his ablution, he found the water muddied by those fish hiding below. See Oman 1984: 103.
 152. The common Sea Lamprey is *Petromyzon marinus*, which is about 80 cm long.
 153. See above, cat. 93.
 154. The Common Dolphin belongs to the *Subfam. Delphinoidea* which includes Dolphins, Pilot Whales and Killer Whales. It is a cetacean of the *Subord. Odontoceti*. The subfamily includes fourteen genera and thirty-two species.
 155. Possibly also read as *dhū bayān*. The reading of the name of this fish is uncertain since it is not found in the specialised literature on the subject. Oman 1984 mentions that the word *dhu'āba* means the 'barbel of a fish'.
 156. The *Fam. Torpedinidae* includes thirty-five species, among them Torpedoes, Electric Rays and Numbfishes. Wehr 1976 gives *ra'ād* as 'Electricity Ray'. Oman (1974: 370) lists *Malopterurus electricus* and *Silurus electricus* as the African Electric Catfish.
 157. It is so called because it generally lives in symbiosis with sharks, feeding on the micro-fauna found on their skin.
 158. *Saratān* may also be the 'Crayfish'. However, there is no doubt that the animal described here is the Crab. It is a crustacean of the *Subcl. Malacostraci* and includes a large number of families and a proportional number of genera and species. The Common Crab of the Mediterranean is *Carcinus moenas*. *Gen. Cancer* and *Callinectes* are especially known for their delicate meat.

159. Like the Crab, the Lobster is a crustacean of the *Subcl. Malacostraci*. The common Lobster is *Homarus gammarus*.
160. The Skink is a reptile of the *Ord. Squamata, Subord. Sauria (Lacertilia)*.
161. The painting is too damaged to determine its height. The same problem is also present at cat. 104.
162. Abū 'Alī ibn al-Ḥusayn ibn 'Abd Allāh ibn Sīnā, known in the West as Avicenna. He is known primarily as a philosopher and a physician but he contributed to the advancement of all sciences known in his time. He was born in Afshana near Bukhara in 370/980 and died in Hamadan in 428/1037. His autobiography covers his first thirty years, and the rest are documented by his disciple al-Juzjānī. He wrote primarily in Arabic although Persian was his native language and he never travelled to any Arabic-speaking country. A total of 276 works are attributed to him. In this manuscript, Ibn Sīnā is usually named through his epithet *al-shaykh al-ra'īs* ('the chief shaykh'). For the extensive bibliography on the subject, see Goichon, 'Ibn Sīnā', *El2*.
163. The *Ord. Chelonia, Subord. Cryptodira* includes the *Fam. Chelonidae* (marine Turtles) and *Testudinae* (land Tortoises).
164. This illustration and the next (cat. 103) are published in Alpago 1991: plate between 128 and 129.
165. This seems to be the correct reading in the London Qazvīnī, although other versions report that the snake manages to bite the tortoise's chest and kill it.
166. As reported in the text below, the word *samak* is only a general term for any species of fish.
167. *Fam. Cyprinidae* is the largest family of fish, including more than 1,600 species.
168. Wehr 1976: one 'finger' corresponds to 3.125 cm in Egypt.
169. The family includes more than 120 species, all Rays and Skates.
170. *Gen. Engraulis* includes 110 species of fish, mainly Anchovies. Al-Ma'luf (1932: 10) writes that it is presently generally called *balam* and becomes *ṣīr* only when it has been salted; the name *ṣīr* also includes smaller species of Anchovies, but on the Red Sea coast it is also applied to the larger fish of the *Fam. Engraulidae*.
171. Transliterated also as *ḍafḍa'*, *ḍufḍu'*, *ḍafḍi'*.
172. This amphibian belongs to the *Subord. Diplasiocoela, Fam. Ranidae* and includes only one genus, *Rana*, but more than 300 species. The most common Frogs are *Rana esculenta* and *Rana temporaria*.
173. This story is reported by al-Jazā'irī (1978: 120): '[. . .] and the frog went to the fire bringing water in order to extinguish it.'
174. See cat. 102–3.
175. Literally 'the Water Horse'.
176. The identification seems certain even if the description of this animal has more to do with story-telling than with science. The story of the stallion of the sea mating with mares also appears in *The Thousand and One Nights* (Burton 1885–6, VI: 8, 539th night, First Voyage of Sindbad).
177. This Abū Qāsim is probably an oral source. However, Abū al-Qāsim is the name of the protagonist of the *Hikāyāt Abī al-Qāsim al-Baghdādī* by Muḥammad ibn Aḥmad Abū al-Muṭahhar al-Azdī. The text was probably written in the fifth/eleventh century and relates a day in the life of its hero: Abū al-Qāsim gets a hearing at a banquet, shows his linguistic skills, gets drunk, falls asleep, wakes up and starts talking

- again. He could well be the teller of the story mentioned by al-Qazvīnī. A second possible identification is the thirteenth-century writer on alchemy and magic, Abū al-Qāsim al-ʿIrāqī (see note 62 in Chapter 3).
178. A cetacean called 'Qāṭūs' is not illustrated. The text reads: 'It is a huge fish which [is able] to crush ships. When sailors realise that it is approaching, they hang a piece of rag [soaked] in menstruated blood on the ship's side in order to chase it away.'
179. See cat. 73.
180. There are only two species of Beaver. *Castor fiber* is common in Eurasia, *Castor canadensis* in North America.
181. The reading of the name of this locality seems clear in both the London and the Munich Qazvīnī. However, it is found neither in Yāqūt 1866–73 nor in al-Qazvīnī 1960. The word seems to be Turkish, Aysū being a relatively common female name formed by 'moon' (*ay*) and 'water' (*su*). Other versions give the name as Wisū and von Hees (2008: 254, note 194) identifies it with today's Russian federal region of Perm Krai along the western slopes of the Ural Mountains including the Kama River, one of the main tributaries of the Volga.
182. Almost all the Sea Urchins belong to the *Subcl. Echinoidea*. The most common is *Paracentrotus lividus* but there are numerous species.
183. The identification of this cetacean with the name *qūqī* is given only by al-Maʿluf (1932: 168), who also gives *karkadann al-baḥr*, 'the Sea Rhinoceros', and *harīsh al-baḥr*, 'the Sea Unicorn', as other names for the same animal. However, the name *qūqī* is not found in dictionaries. The Narwhal is a cetacean of the *Subord. Odontoceti* and of the same subfamily as the Dolphin, *Delphinoidea*.
184. The European Otter, *Lutra lutra*, is the most common. The same genus includes twelve species distributed all over the world. Other genera are *Aonyx* and *Paraonyx*: among them are the African Clawless Otter and the Small-clawed Otter.
185. See also the text on the Weasel, cat. 265.
186. It is listed here for the second time. For its scientific name, see cat. 58.
187. Literally 'liver'.
188. Al-Qazvīnī describes here the large grotto of Tāq-i Bustān, a Sasanian monument datable to the end of the sixth century located about 10 km north-east of Kermanshah. It is mentioned in many accounts of Arab travellers and geographers. The monument shows a clear Byzantine-inspired victory iconography and portraits of Khusraw II, the goddess Anahita and Ahura Mazda on the upper level. Khusraw riding his horse appears again on the lower level; the whole scene is framed above the arch by two angels or flying figures, again symbols of victory celebrating the Sasanian ruler. An interesting article by Soucek (1974) is entirely devoted to how the original meaning of the monument was transformed in the Islamic period, and how it was dealt with in later Persian painting: the identity of the characters was changed so that Anahita became Shirīn (Khusraw's spouse) and Ahura Mazda turned into Farhad, the sculptor and the king's rival for the love of Shirīn. Mis'ar ibn Muḥalḥal's identification (mentioned by al-Qazvīnī as his source) of Ahura Mazda as a workman is related to the figure of Farhad when he was ordered by Khusraw to quarry stones from Mount Bisutūn. The synthesis of the story is found in the text of Niẓāmī of Ganjah, *Khusraw ve Shirīn*, written at the end of the twelfth century, where the two traditions of Farhad as a workman and as a sculptor

- are eventually merged. For a general discussion on the grotto of Tāq-i Bustān, see Herzfeld 1920: 57–103 and Movassat 1991.
189. Better known as Abū Dulaf. He was a poet, traveller and mineralogist. The earliest date in his biography is his appearance in Bukhara in c. 331/943; he travelled in Persia between 331/943 and 352/963, and wrote two geographical *risālas*. See Minorsky, 'Abū Dulaf', *El2*. For Abū Dulaf's description of Tāq-i Bustān, see *Travels in Iran*, ed. and trans. V. Minorsky, Cairo, 1955: 14, 42 and 92, and Soucek 1974: 44. The text of Miṣ'ar ibn Muḥalhal reads: 'In front of it [the *ayvān*] is a man in the clothing of a workman; on his head a pointed cap, [he is] girdled at the waist, in his hands [he holds] a spade with which he digs the earth. Water flows from beneath his feet.'
 190. Qarmisin was a station of the Silk Road, in the western Iranian highlands. It was linked with Tiflis in Georgia via Tabriz and Dvin (Armenia's capital). See Spuler 1970: 15.
 191. Khusraw II, son of Hormuz, called 'the Victorious' (590–628).
 192. The *aṣḥāb al-kahf* or 'Companions of the Cave' are usually called the 'Seven Sleepers of Ephesus' in the Christian Occident. At the time of the persecutions under Emperor Decius (249–51 AD) these individuals fled to a cave near Ephesus and sank into a miraculous sleep until they awoke under the rule of the Christian Emperor Theodosius (346–95). The Companions are mentioned in the Qur'an in which *sura* 18 takes the title of *al-kahf* or 'of the Cave'. Muḥammad states that the Companions are three, five or seven, and only God knows the length of their sleep. For further information, see Paret, 'Aṣḥāb al-kahf', *El2*, Huber 1910 and Huber's translation of Arabic texts on the Companions in *Romanische Forschungen*, XXVI, 1909; see also Sidersky 1933: 153–4.
 193. As a rule, seven or twelve sleepers are depicted.
 194. The name Raqīm is disputed: the Qur'an (18: 9) mentions 'those of the Cave [of] al-Raqīm', and this is variously interpreted as a place-name, an inscription put in that place, or the name of the dog otherwise called Qitmīr (see below, note 199).
 195. According to the hadiths, 'Ubāda ibn al-Sāmit was appointed by the Prophet to teach the art of writing and the Qur'an at Suffah (the thatched platform erected in the mosque at Medina). See Hammam ibn Munabbih 1979: 15–16.
 196. The first caliph, 11–13/632–4.
 197. As mentioned above (note 192), the number of the sleepers is not clear (three, five, seven) and al-Qazvīnī says that they are thirteen a few lines before. The Qur'an (18: 22) states: '[The Prophet] Muḥammad (Peace upon Him) says: "My Lord knows best their number; none knows them but a few."'
 198. Probably the first 'Abbasid caliph, 132–6/749–54.
 199. Qitmīr is sometimes considered a holy dog. Its name literally means 'pellicle enveloping a date pit' (Wehr 1976). Paret ('Aṣḥāb al-kahf', *El2*) reports a curious story about this name: 'The name *qitmīr* plays today a special part among Turks of East Turkestan and also in Indonesia: to inscribe a letter which it was desired to protect from loss, with the word *qitmīr* instead of "registered".'
 200. Published in Carboni 1988–9: pl. VIIA and Berlekamp 2011: fig. 74.
 201. The authority quoted here is probably 'Abd al-Raḥmān ibn 'Abd Allāh ibn 'Abd al-Ḥakam, a Maliki jurist from Egypt who died in 870–1. See

- Dodge 1970, II: 940. In his geographical work, al-Qazvīnī states that he was the envoy of the caliph Muʿāwīya to Yemen (al-Qazvīnī 1960: 66).
202. ʿAmr ibn al-ʿĀs was the conqueror of Egypt in 19–21/640–2; he founded the city of al-Fustat and was governor of Egypt under the second caliph, ʿUmar b. al-Khaṭṭāb (13–23/634–44). See Wensinck, ‘ʿAmr ibn al-ʿĀs’, *EL2* for further details and a bibliography.
203. The tenth month of the Coptic calendar.
204. Respectively the tenth, eleventh and twelfth months of the Coptic calendar.
205. The second caliph, r. 13–23/634–44.
206. In Arabic *qabla al-salīb bi-yawm[in]*, ‘the day before the Cross’.
207. This story is related to the previous one concerning the River Nile (cat. 120). Here music and dance substitute the plunging of the young girl into the river. Both have in common that people must be dressed up to perform that sort of exorcism.
208. The same story is told by al-Qazvīnī in his *Āthār* (1960: 304).
209. Hārūt and Mārūt are mentioned in the Qurʾan (2: 96). The two angels were chosen by God who challenged them to do better than men, who were sinners, if placed under the same conditions. Hārūt and Mārūt failed the test because as they reached earth they were captivated by a beautiful woman and killed a man who had witnessed their misconduct. All other angels saw them from Heaven, and Hārūt and Mārūt chose to expiate their offence by being imprisoned and hanged by their feet in a well in Babylon ever since. Al-Qazvīnī appears to follow an ultimately Jewish source for the last part of his story. According to Sidersky (1933: 23), this source is the *Midrash Abkir*, a Haggadic (i.e. ‘narrative’ or ‘anecdotal’) Jewish work of the late period (after the third to fourth century AD) which also recurs in more than one Arabic text. The *Haggada* is a rabbinical commentary on the Old Testament, containing traditional stories and legends, sometimes amusing, sometimes trivial. The *Midrash Abkir* mentions that the two angels had lost the use of the ineffable name of God, and this is probably the reason why they became so frantic when his name was pronounced by Mujāhid. The origin of the legend derives indirectly from Genesis (VI). See also Rapaport 1917 and Lehrman 1961. According to some texts, the woman involved with Hārūt and Mārūt learned the name of God from them, and soon after they forgot it. The mythological birth of the planet Venus, *zuhra*, apparently takes its origin from this legend, since God changed the woman into a star called Zuhra. For further reading see Vajda, ‘Hārūt wa Mārūt’, *EL2*, de Menasce 1947, Bamberger 1952 and Davidson 1967.
210. Published in Berlekamp 2011: fig. 42.
211. Mujāhid ibn Jabr al-Makhzūmī (d. 101/719–20) was one of the instructors of al-Aʿmash in Qurʾan reading in al-Kufa. His fame gained him the name of al-Muqrīʾ (‘reciter of the Qurʾan’). See Jeffery 1937: 276 and Brockelmann and Pellat, ‘al-Aʿmash’, *EL2*.
212. Probably al-Ḥajjāj ibn Yūsuf, the most famous and able governor under the Umayyads, c. 41–95/661–714 (Dietrich, ‘al-Ḥadjdjādj b. Yūsuf’, *EL2*).
213. The subject here is not ‘he’ but ‘I’ because the story-teller from now on is Mujāhid himself and not al-Aʿmash. In the translation, however, it seems more sensible to maintain the third person.
214. Al-Qazvīnī did not mention that this man was a Jew when he was

first introduced a few lines above. The connection between Hārūt and Mārūt and the Jews is found in the Qur'an itself, as reported by Vajda, 'Hārūt wa Mārūt', *El2*: 'In one of its admonitions to the unbelieving Jews of Medina, the Qur'an (II, 102/96) says: "[the children of Israel] follow what the Satans recited over Solomon's kingdom. Solomon disbelieved not, but the Satans disbelieved, teaching the people sorcery, and that which was sent down upon Babylon's two angels Hārūt and Mārūt; they taught not any man, without saying: 'We are but a temptation, do not disbelieve'.'"

215. For this section on the vegetable kingdom, as thorough an investigation as possible of the literature on the subject has been carried out (see Key 1 at the end of this Catalogue). It has been possible to identify with certainty, or suggest identification for, almost all the trees and plants in this section of al-Qazvīnī's text. The modern scientific knowledge of the vegetable kingdom, however, with its complex subdivisions into families, species and subspecies, does not accord with the medieval idea of classification of trees and plants. Al-Qazvīnī offers name and description of plants for which a modern botanist would list a great number of subspecies according to their geographical distribution, the climatic situation in that specific area in the thirteenth century, problems connected with a proper translation of the Arabic name, and the sources available to al-Qazvīnī. Wiedemann 1916 wrote a detailed work on the plants listed by al-Qazvīnī, which should be largely revised. The present catalogue gives the most common English name of the identified plant followed by the Arabic name in its generally accepted transliteration and the Latin name, which offers a more specific recognition of the plant in question. After the Latin name of each plant, an abbreviated note explains the different identifications found in the literature, out of which the most likely one has been selected; the capital letters refer to Key 1.
216. H: Ceylon or East Indian Ebony: *Diospyros ebenum* (Fam. Ebenaceae); B, C, W, M: Ebony Tree; H: Abyssinian Persimmon: *Diospyros abissinica*; A: *Dalbergia melanoxylon* (Cairo); D: *Dyospiros melanoxylon*; G: = *Abanūs*: *Diospyros ebenum*, Fam. Ebenaceae.
217. All illustrations in this section on the vegetable kingdom present the same basic features: a tree, shrub or plant rising from a grassy foreground and set against a blank background. Their description throughout the catalogue will take into account, therefore, only those characteristics that give individuality to each illustration, such as the shape of their leaves, the presence of fruit or flowers, and other details.
218. Green is obviously the largely predominant colour in the illustrations of this section. The shades of green used by the painter are two: dark green and pale vivid green.
219. In the Munich and Gotha Qazvīnī both the text and the illustration of the Ebony Tree come after those of the Myrtle. The London manuscript seems to be an exception and this is probably due to a misinterpretation of the spelling of the two words: both *ābanūs* ('Ebony') and *ās* (Myrtle') are written here with *alif madda*, therefore they are listed in that order. Usually, the Ebony is *abnūs* in Arabic. Surprisingly, the Cairo printed edition follows the text of the London manuscript.
220. B, W, C, M: Myrtle: *Myrtus communis* (Fam. Myrtaceae); G: = *Mursīnis*: *Myrtus communis* L. and Var., Fam. Myrtaceae.
221. Al-Qazvīnī often quotes 'the author of [*The Book of*] Agriculture'

- (*ṣāhib [kitāb] al-filāḥa*) in this section on the vegetable kingdom. It is unclear who he was. Three works with a similar title are known. One of them is the *Kitāb al-filāḥa al-nabaṭiyya* by Ibn Waḥshiyya, which was translated into Arabic from Syriac in 291/903–4; a lengthy discussion has taken place among scholars about its authenticity and the real existence of its author; it has been translated by Hammer-Purgstall (London, 1806). The second work is *Al-filāḥa al-rūmiyya*, translated from the Greek, whose author is a certain Qustūs al-Rūmi recognised as Cassianus Bassus, to whom other agronomic works are attributed. The third is the *Kitāb al-filāḥa* written by Ibn al-ʿAwwām of Seville at the beginning of the thirteenth century: composed of thirty-five books, it is mainly a compilation of quotations; two translations exist, in Spanish (J. Antonio Banqueri, Madrid, 1802) and French (J.-J. Clément-Mullet, Paris, 1864). For a general discussion, see al-Shihabi and Colin, 'Filāḥa', *El2*.
222. B, W, C, H, Q: Citron: *Citrus medica* (Fam. Rutaceae); B: Adam's Apple, Cedrat Tree; G: = *Midiqāmīlā* (utrujj): *Citrus limon*, *Citrus medica*, L. and Var., Fam. Rutaceae.
223. H: European or Garden Plum: *Prunus domestica domestica* (Fam. Rosaceae); B, W, C: Plum Tree, Prune Tree; H, D: Plums, Bullaces, Damsons, Greengages: *Prunus domestica*; G: = *Qūqūmīlā*: *Prunus domestica* and Var., Fam. Rosaceae.
224. H, B, W, M: China Tree, Chinaberry Tree, Indian Lilac Tree, Pride of India, Bead Tree, Margosa Tree, Persian Lilac: *Melia azedarach* (Fam. Meliaceae); O: Neem: *Azidarachta indica*. The sixteenth-century physician Andrea Alpago stated that this tree is called *zalzalakht* in Damascus, and that it is also found in Venice and in Padua, where it is called 'arbor da li pater nostri' (Alpago 1991: s.v. 'azād-dirakht').
225. See cat. 182.
226. C: Egyptian Thorn; W, T, SG: = *ṭalh*: *Acacia seyal*; H: Egyptian Thorn, Gum Arabic Tree, Babul: *Acacia nilotica* or *Acacia arabica* (Fam. Leguminosae); Gum Arabic Tree, Tahl Gum: *Acacia seyal* (Fam. leguminosae); G: = *Lūqāqanthā* (= *al-shawka al-ʿarabiyya*): *Cirsium tuberosum* and Var., Fam. Compositae; N also called *al-shawka al-ʿarabiyya* or *aghaylān*. Ibn Baytār calls it *ṭalh*.
227. It is probably the Persian word *bunk*, translated by Steingass 1930 as 'the bark of the Egyptian thorn'. Wehr 1976 gives for the same word in Arabic 'root, core, best part'.
228. P, Z, T: Winged Moringa, Myrobalanum of Joseph: *Moringa aptera*; W: *Behenbaum*; H, O: Horseradish Tree: *Moringa oleifera* (the seed contains a saponin as well as 38% of an oil [*ben* oil]), *Moringa pterygosperma*; A: *Moringa arabica* (desert tree); G: = *Fālānun*: *Moringa arabica* and Var., Fam. Moringaceae.
229. It seems that here the painter did not follow the rule of illustrating the tree beside its text. According to the descriptions of both the Gum Arabic Tree and the Moringa, their illustrations should be exchanged.
230. This last statement is confirmed by P.
231. F, B, C, T, D: Turpentine Tree: *Pistacia terebinthus* (Fam. Anacardiaceae); G: = *Tarminthus*: *Pistacia terebinthus* and Var., Fam. Anacardiaceae.
232. H: Balm of Gilead: *Populus candicans* (Fam. Salicaceae, subgen. *tacamahaca*); V: Balm of Gilead, Balsam of Mecca, Opobalsamum, Balm of Mecca, Balm of Scripture, Gilead Balsam, Mecca Balsam, Opobalsam:

- Commiphora opobalsamum* (in Arabic *belassān* [?], *beskān*; in French also *baume d'Égypte*; in German also *Ägyptischer Balsam*); P, B: Balsam of Gilead, Balm of Gilead, Balsam of Mecca, Balsam Apple, Apple of Jerusalem; C, W: Balm Tree; Y: *Commiphora myrrha*; A: *Momordica balsamina* (Cairo), *Commiphora opobalsamum* (Cairo), *Sambucus nigra* (Nile Valley); D: *Balsamodendron opobalsamum*; G: = *Balsāmun*: *Commiphora opobalsamum* and Var., Fam. Burseraceae.
233. Presently a suburb of Cairo.
234. H: Oak: gen. *Quercus* (Fam. Fagaceae); Holm Oak, Evergreen Oak: *Q. ilex*; Lebanon Oak: *Q. libani*; Turkey Oak: *Q. cerris*; English Oak: *Q. robur*; Durmast Oak: *Q. petraea*; B: Evergreen Oak, Holly Oak: *Quercus ilex*; B, W, C, M: Oak Tree; A: *Quercus infectoria* (Cairo) = 'afs; D: Dyer's Oak; G: = *Drus*: *Quercus* and Var., Fam. Fagaceae.
235. H: Cultivated or Edible Apple: *Malus domestica* (Fam. Rosaceae); Oriental Apple: *Malus Orientalis*; B: Apple Tree: *Pyrus malus*; G: = *Milā'ās*: *Malus sylvestris* or *Pyrus malus* and Var., Fam. Rosaceae.
236. C: Cone-bearing Fir; B, M: Norway Spruce, Whitefire: *Picea excelsa*; W: Spruce: *Fichte*; P: Cedar of Lebanon: *Cedrus libani brevifolia*; H: Norway or Common Spruce: *Picea abies* (Fam. Pinaceae); Oriental Spruce: *Picea orientalis*; Cedar of Lebanon: *Cedrus libani*; FAO: *Abies alba*, *pectinata* (*al-fiddiyy*), *Abies amabilis* (*al-abyaḍ*), *Abies balsamea* (*al-balsam*), *Abies nobilis*, *procera* (*al-fakhīr*); G: = *Bitīs*: *Pinus*, *Abies*, *Larix*, *Cedrus*, and also *Cupressus*.
237. B, W, C, M: Mulberry, White Mulberry: *Morus alba*; H: White Mulberry: *Morus alba* (Fam. Moraceae); Black Mulberry, Persian Mulberry: *Morus nigra*; G: = *Mūrā*: *Morus nigra*, Fam. Moraceae.
238. H, W, B, C, P: Edible Fig, Cultivated Fig, Common Fig Tree: *Ficus carica* (Fam. Moraceae); G: = *Siqā*: *Ficus carica* Var. *domestica*, Fam. Moraceae.
239. H, W, B, C, Y, M: Mulberry Fig, Sycamore Fig, Pharaoh's Fig, Maple Tree: *Ficus sycomorus* (Fam. Moraceae); G: = *Siqāmūrā*: *Ficus sycomorus* and Var., Fam. Moraceae.
240. H, W, B, C, M: Walnut Tree, Common Walnut, English Walnut, Persian Walnut: *Juglans regia* (Fam. Juglandaceae); G: = *Qāriyāsīqā*: *Juglans regia* and Var., Fam. Juglandaceae.
241. W: *Galgant Alpinia*, *ein Ingwergewachs* (Persisch); C: Galingale; N: *khulanjān* is various species of galanga root, mostly from *Alpinia officinarum*, from Persian *khawlinjān*. Maimonides gives the Persian as *kisrūdārū*, from *kisre dārū*, 'medicine of Khusraw'; Wehr 1976: *khulangān* (Eg), 'rhizome of galingale (*Polypodium Calaguala* Kz)'. However, since it is described as a large tree, this plant cannot be identified as the galingale of which it is probably a synonym.
242. The galanga root, usually written *khulanjān*. In Persian it is *khalanjān*. According to Levey 1962: 31, note 224 it is probably the lesser galingale which comes today from Southeast Asia and China. However, see the previous note for the problem of identification of this tree.
243. B, W, F, C, Y, M: Castor Oil Plant, Palma Christi: *Ricinus communis* (Fam. Euphorbiaceae); G: = *Qīqī*: *Ricinus communis* and Var., Fam. Euphorbiaceae.
244. Translated by Steingass 1930 as 'the shrub Palma Christi'.
245. H: White Willow: *Salix alba* (Fam. Salicaceae); Crack Willow: *S. fragilis*; Almond-leaved Willow: *S. triandra*; Common Osier: *S. viminalis*; B, C, Y, T: Egyptian Willow: *Salix egyptiaca*.

246. Wehr 1976: 'a variety of willow (*Salix Safsaf F.*)'.
247. Steingass 1930: *bīd, bed*, 'a willow'.
248. B, H, W, C, M: Peach Tree: *Prunus persica* (Fam. Rosaceae); G: = *Barsīqāmīlā: Prunus persica* and *Amygdalis persica* and Var., Fam. Rosaceae.
249. F: Common broom: *Cytisus scoparius*; *Cytisus palmensis* (from which the Tagasaste is obtained); B: Spiny Broom, Spiny Cytisus: *Calycotome spinosa*; W: *Aspalath, eine Cytisusart*; C: Bistort-root; D: *Cytisus lanigerus*; G: = *Asbālāthus (darshīshaʿān): Cytisus, Sarothamnus Wimmer, Ulex, Genistella Moench, Genista, Spartium*, from Persian *dār* ('wood') and the unidentified *shīshaʿān* or *shīshaghān*; L: Spiny Cytisus: *Calycotome spinosa*; *Aspalath*; in Syriac *qisa nardin* ('Nard-wood').
250. H, B, W, C, M: European Field Elm, Elm Tree: *Ulmus minor* (Fam. Tiliaceae); A: *Fraxinus excelsus* (North Algeria); G: = *Batyalāyā* in Iran and Iraq: *Ulmus carpinifolia* or *U. campestris, U. glabra*, Fam. Ulmaceae; in Syria, Egypt and North Africa *Fraxinus excelsior*, Fam. Oleaceae.
251. In the Cairo edition, 'it resembles the seeds of the pomegranate.' The Munich text is the same as the London Qazvīnī on this point.
252. B, H, W, C, M: Oriental Plane, Plane Tree: *Platanus orientalis* (Fam. Platanaceae); G: = *Aflāṭanus: Platanus orientalis* and Var., Fam. Platanaceae.
253. Steingass 1930: 'a plane tree'.
254. The text gives here *khanāfīs*, sing. *khunfūs*, which means 'dung beetle, scarab'. However, it is very likely a *lapsus calami* since the story of its repulsion to plane leaves is related to bats (*khafāfīsh*, sing. *khuffāsh*). See also cat. 312.
255. One of these birds is the Magpie; see previous note.
256. C: Laurel; W: Laurel, Bay: *Lorbeer*; H: Sweet Bay, Bay Laurel, Bay: *Laurus nobilis* (Fam. Lauraceae); G: = *Dāfnī*, Persian for *ghār* and *rand: dah mast: Laurus nobilis* and Var., Fam. Lauraceae.
257. Wehr 1976: 'laurel tree, bay'.
258. F, B, W, P, C, Q, M: Pomegranate: *Punica granatum* (Fam. Punicaceae); G: = *Rūdāʿīdā: Punica granatum* and Var., Fam. Punicaceae.
259. B, W, H, C: Olive Tree, Common Olive: *Olea europaea* (Fam. Oleaceae); T: *Olea chrysophilla*; G: = *Alāʿun: Olea europaea* and Var., Fam. Oleaceae.
260. ʿAbd Allāh ibn al-ʿAbbās, frequently called Ibn ʿAbbās, is considered one of the great scholars of the first generation of Muslims. He was the father of Qurʾanic exegesis. He was born in 619, three years before the *hijra*, and died in 68/688. He was counsellor to the caliphs ʿUmar, ʿUthmān, ʿAlī and Muʿāwiya. See Veccia Vaglieri, 'Ibn ʿAbbās', *El2*. In the text, inexplicably, the blessing is a dual form (*ʾanhumā*): two persons are addressed; however, the authority quoted is only Ibn al-ʿAbbās.
261. Possibly the Hudayfa mentioned as the transmitter of two hadiths in Muhammad Ali 1944: 146, no. 18, Ch. X ('Prayer service') and 355, no. 22, Ch. XXVIII ('Foods and drinks'). Neither one mentions the story told here by al-Qazvīnī.
262. Here the calligrapher and consequently the painter have made an obvious mistake: the text is clearly related to the 'Cypress' (*ṣarw*) whereas the title reads 'Coconut' (*shajar jaww al-hind*). The painter,

who illustrated two coconut trees, evidently looked only at the title without reading the text. The Coconut is properly dealt with and illustrated at cat. 181.

263. W, P, Y, M: Cypress: *Cupressus*; H: Italian Cypress, Mediterranean Cypress, Funeral Cypress: *Cupressus sempervirens* (Fam. Cupressaceae); G: = Qayūbārissūs: *Cupressus sempervirens*, Fam. Cupressaceae; sometimes *Juniperus oxycedrus*, *J. sabina*, Fam. Cupressaceae.
264. H, P: Common Quince: *Cydonia oblonga* (Fam. Rosaceae); B, A: Quince Tree: *Cydonia vulgaris*; G: = Qūdūniyāmīlā: *Cydonia oblonga*, Fam. Rosaceae.
265. H, B, P, C, M: Tanner's Sumach, Elm-leaved Sumach: *Rhus coriaria* (Fam. Anacardiaceae); G: = Rūs: *Rhus coriaria* and Var., Fam. Anacardiaceae and also *Cotinus coggygia* or *Rhus cotinus* and Var., Fam. Anacardiaceae.
266. H: Sandarach Tree: *Callitris quadrivalvis* (Fam. Cupressaceae); B: Arar Tree, Sandarach Tree, Juniper-gum Tree: *Callitris quadrivalvis*; C: Red Juniper; G: = Qanqamū: *Callitris quadrivalvis*, Fam. Cupressaceae.
267. Such is the vocalisation in the text. In Wehr 1976 *šiwān* is 'cupboard, case'; *sawwān* is 'flint, granite'; and *adawāt sawwānī* 'flint implements'. However, none of these terms seems to be related to this text. In the Munich Qazvīnī, fol. 119v, the text reads *sawk*: Lane 1863–93 translates the word as 'the seminal fluid of a man'; however, the roots [swk] or [s'k] also have the general meaning of something 'sticking' or 'cleaving'.
268. W, F, H: Euphorbia: *Euphorbia lathyris* (Fam. Euphorbiaceae); V, C: Alum: *Simphytum officinale* (Fam. Boraginaceae); U, E, S: Caperbush, Caper Spurge: *Euphorbia lathyris*; A: *Artemisia arborescens* (Cairo) = *Shābba* [?]; SG: *shabāb baḥra*: *Euphorbia lathyris* [?]. Ferrand (1925: 266) quotes a 'Tree of youthfulness' (*shajarat al-shabāb*), so called because if one eats meat cooked on the fire burnt with its wood, white hair will turn permanently black (see also Devic 1883: 241). Since Euphorbia is more likely identified also as the *lā'ya* (not illustrated; see below, note 302), it is here preferred to avoid its identification.
269. H, B, W: Chestnut, Sweet Chestnut, Spanish Chestnut: *Castanea sativa* (Fam. Fagaceae); G: = Lūbīmā or Qastāniyā: *Castanea sativa*, Fam. Fagaceae.
270. W, B, C: Sandalwood: *Santalum*; H: White Sandalwood: *Santalum album* (Fam. Santalaceae); M: African Rosewood (*aḥmar*), *Pterocarpus*; G: *Santalum album*, Fam. Santalaceae.
271. H, B, W, P, M: Aleppo Pine: *Pinus halepensis* (Fam. Pinaceae); Stone Pine, Italian Stone Pine, Umbrella Pine: *Pinus pinea*; G: *Pinus* and Var., Fam. Pinaceae.
272. Wehr 1976 gives 'tar' for the word *qiṭrān*, *qatrān* or *qatarān*.
273. W: Lentiscus [?]; V, C: *Arum* (Fam. Aracaceae); F, A: Lentiscus: *Pistacia lentiscus* (Fam. Anacardiaceae); G, L: = *Skhīnus* (*shajar al-maṣṭaka*, a resin taken from the *Terebinthus*): *Pistacia lentiscus* or *Terebinthus lentiscus*, Fam. Anacardiaceae.
274. Indeed, these two trees belong to the same species. The Turpentine tree is *Pistacia terebintus* (see cat. 130).
275. B: Tamarisk: *Tamarix gallica*; F, T, Q: Tamarisk: *Tamarix* (Fam.

- Tamaricaceae*); Y: *Tamarix nilotica*; Z: *Tamarix aphylla*; G: = *Mūriqī*: *Tamarix gallica*, *T. articulata*, *Fam. Tamaricaceae*.
- 276 Steingass 1930: gāz: 'the tamarisk tree'.
277. H, B, W, Y, M, A: Common Juniper: *Juniperus communis* (*Fam. Cupressaceae*); Prickly Juniper, Prickly Cedar: *Juniperus oxycedrus*; *J. excelsa*; *J. phoenicea* (Cairo); G: = *Arqūthus*: *Juniperus oxycedrus* or *J. phoenicea* and Var., *Fam. Cupressaceae*.
278. B, Y, Z: Mudar Plant, French Cotton: *Calotropis procera*; Madar, Mudar, Bow String Hemp: *Asclepias gigantea*; F: Mudar Plant: *Calotropis gigantea* (*Fam. Asclepidaceae*); G: (yatṭū): *Euphorbia* and Var., *Fam. Euphorbiaceae*.
279. Literally 'ignorance', meaning the period before the advent of Islam.
280. The soft and tender wood of this tree apparently suggests the idea of female legs and arms, as reported by Arioli 1989: 115, commenting on the islands of Wāqwāq.
281. W: *Gallapfel*; B: Dyer's Oak, Gall Oak, Nut Gall Oak: *Quercus lusitanica*; C, M: Gall Tree; H, A: see under *ballūt*; G: = *Qīqis*: *Quercus lusitanica*, *Q. infectoria*, *Fam. Fagaceae*.
282. See cat. 132.
283. Probably Muhammad ibn Ishāq ibn Yasār ibn Khiyār, one of the main authorities on the 'Life of the Prophet' (*al-sīra al-nabawiyya*). He was born in Medina c. 85/704, and died probably in Baghdad in 150/767. See Jones, 'Ibn Ishāq', *El2*.
284. See cat. 266.
285. W, C, P, M: Jujube: *Ziziphus officinarum*; B: Tame-poison: *Vincetoxicum officinale*; F: Indian Jujube, Chinese Date: *Ziziphus jujuba* (*Fam. Rhamnaceae*); O: Jujub Tree: *Ziziphus spina-vulgare*; A: *Ziziphus vulgaris* (Nile Valley).
286. B, W, C, M: Common Service Tree: *Sorbus domestica*; H: Service Tree: *Sorbus domestica* (*Fam. Rosaceae*); Rowan or European Mountain Ash: *Sorbus aucuparia*; Wild Service Tree: *Sorbus torminalis*; G: = *Uwā*: *Sorbus domestica* or *Mespilus domestica*, *Fam. Rosaceae*.
287. W: Poplar, Willow: *Pappel*, *Weide*; B: Willow: *Populus euphratica*; Weeping Willow: *Salix babylonica*; P: Euphrates Poplar: *Populus euphratic*; C: White Poplar; H: Weeping Willow: *Salix babylonica* (*Fam. Salicaceae*); White Poplar: *Populus alba* (*Fam. Salicaceae*); G: = *Atā'ā*: *Salix* and Var. and *Populus* and Var., *Fam. Salicaceae*.
288. Such is the transliteration given by Steingass 1930, 'a sort of willow, the aspen'. In the text the word is in two parts: *isped* ('white, colourless') and *dār* ('wood').
289. The Peony (*fāwāniyyā*, *Paeonia officinalis*) is probably not illustrated. Two trees are described in the text but with only one illustration. The illustration is on the left side of the text on the Peony but the painting, however vague, seems to depict the Pistachio. *Fāwāniyyā* is identified in the literature as follows: W, M: = *Paeonia*; C: 'Wood of the Cross'; FAO: = 'ūd al-ṣalīb: *Paeonis spp.*; A: = 'ūd al-ṣalīb: *Paeonia officinalis* (Cairo). The text reads: 'It is [also called] "Wood of the Cross" ('ūd al-ṣalīb). There are species from Rūm and from India. Its wood cleans black marks from the skin.'
290. F, B, W, C: Pistachio: *Pistacia vera* (*Fam. Anacardiaceae*); O: *Pistacia*: *Pistacia atlantica*; G: = *Bisṭāqiyā*: *Pistacia vera* and Var., *Fam. Anacardiaceae*.

291. F, B, W, C, M: Black Pepper Tree: *Piper nigrum* (Fam. *Piperaceae*); G: = *Bābārī* (fulful): *Piper nigrum*, Fam. *Piperaceae*.
292. H: Common or European Hazel, Cobnut: *Corylus avellana* (Fam. *Betulaceae*); Turkish Hazel: *Corylus colurna*; B, F, C: Hazelnut Tree: *Corylus avellana*.
293. W: = *Fil-Zarah*: *Elefantengalle*, *Lycium*; B: African Tree, Kaffir Thorn: *Lycium afrum*; P: Hydrangea-like Bush: *Vitex pseudo-negundo clero-dendron fragrans*; C: Boxthorn or Elephant Gall; F: *Capsicum annuum*, *C. frutescens* (Fam. *Solanaceae*) [?]; G: = *Luqyūn* (*shajarat al-huḍaḍ* or *huḍuḍ*): *Lycium* and Var., Fam. *Solanaceae* and *Rhamnus infectoria*, Fam. *Rhamnaceae*. Levey (1962: 35, note 250) identifies *huḍuḍ*, *filzah-raj* and *lycium* as the juice of the boxthorn, according to Maimonides.
294. According to Levey (1962: 35, note 250), *huḍuḍ* or *huḍaḍ* is the juice of the boxthorn; see previous note.
295. F, B, C: Clove Tree: *Eugenia caryophyllus* (Fam. *Myrtaceae*); A: *Dianthus caryophyllus* (Nile Valley, Cairo, Alexandria); R: *Caryophyllus aromaticus*; G: Fam. *Caryophyllaceae*.
296. This 'island' corresponds to the archipelago of the Moluccas. The Arab ships going to China did not use to call at these islands, therefore the Arab geographers were unable to gain information about the exact place of origin of the clove. Al-Qazvinī mentions the clove trade under the Island of Barta'iyl in the Indian Ocean (see cat. 39). See Ashtor, 'Karanful', *El2*.
297. F, B, C: Sugar Cane: *Saccharum officinarum* (Fam. *Andropoginae*, Ord. *Graminales*); Common Reed: *Phragmites communis* (Fam. *Arundinae*); Y: *Arundo donax*; G: = *Qalamun*: *Arundo donax* and *Phragmites communis*, Fam. *Gramineae*.
298. W, C, M: Camphor: *Kampfer*; H: Camphor Laurel: *Cinnamomum camphora*; B: Camphor Tree: *Cinnamomum camphora*; Q: *Dryobalanops camphora* (Fam. *Dipterocarpaceae*); G: *Cinnamomum camphora*, Fam. *Lauraceae* and *Dryobalanops aromatica*, Fam. *Dipterocarpaceae*.
299. The present text reads *b-y-r*. The Gotha Qazvinī gives *billawr* ('crystal', fol. 49r). 'Vulture' (*nasr*) is given by the Cairo edition. In the Munich Qazvinī the relevant word is illegible; however, the sentence is linked to the following: 'Vultures [?] like it, therefore people go to that tree only at some known time [when they know the vultures are not there [?]].'
300. F, B, W, C, Q, M, G: Grape Vine: *Vitis vinifera* (Fam. *Vitaceae*).
301. B, W, C: Pear Tree: *Pyrus communis*; H: Common or European Pear: *Pyrus communis* (Fam. *Rosaceae*); Wild Pear: *P. pyraster*; Syrian Pear: *P. syriaca*; *P. caucasica*; *P. turcomanica*; Willow-leaved Pear: *P. salicifolia*; *P. amigdaliformis*; *P. eleagrifolia*; *P. takhtazhiani*; G: = *Abyūs*: *Pyrus domestica* or *P. communis* and Var., Fam. *Rosaceae*.
302. The Euphorbia (*lā'iyya*, *Euphorbia officinarum*, Fam. *Euphorbiaceae*) is not illustrated. RC: *Lā'iya*: *Euphorbe*; *ici Euphorbe officinale*, *Euphorbia officinarum*; G: (*Lāsi'a* ?): *Saponaria ocymoides* or *Silene gallica*, Fam. *Caryophyllaceae*; SG: *lāghiya*: *Euphorbia triaculeata*. The text reads: 'This tree is found at the foot of mountains and contains much poison.'
303. W: Incense Tree: *Wiehrauchbaum*; B, F: *Boswellia carterii* (Fam. *Burseraceae*) (produces Frankincense or Gum olibanum); C: Juniper Gum; H: Syrian Juniper: *Juniperus drupacea* (Fam. *Cupressaceae*);

- Prickly Juniper: *Juniperus oxycedrus*; Z: *Boswellia sacra*; G: = *Lībānus*: *Boswellia carterii*, Fam. Burseraceae; Wehr 1976: *lubān dhakar*, 'resin of *Boswellia olibanum*'; *lubān shāmī*, 'a pitchy resin used as depilatory (resin of *Pinus Brutia*)'.
304. *Kundur* is the name also used by Dioscorides, while al-Kindī used the term *lubān*. According to al-Qazvīnī, both terms indicate the gum of the Frankincense Tree. See also Levey 1962: 45, note 306.
305. Published in Carboni 1988–9: pl. VIIC and Berlekamp 2011: fig. 31.
306. H, B, W, C, M: Almond: *Prunus amygdalus* (Fam. Rosaceae); G: *Prunus amygdalus* var. *amara* and var. *sativa*, Fam. Rosaceae.
307. Published in Carboni 1988–9: pl. VIIC and Berlekamp 2011: fig. 31.
308. H, W, C: Lemon: *Citrus limon* (Fam. Rutaceae); B: Lemon, Common Lemon: *Citrus medica* var. *limonum*.
309. Published in Hallam 1989: 27 and Berlekamp 2011: fig. 32.
310. Published in Berlekamp 2011: fig. 32.
311. H, B, W, C, M: Apricot: *Prunus armeniaca* (Fam. Rosaceae); G: = *Armināqum*: *Prunus armeniaca*, Fam. Rosaceae.
312. F, B, W, C, P, M: Banana Tree: *Musa paradisiaca sapientium* (Fam. Musaceae); Plantain: *Musa paradisiaca*.
313. H, B, W, C: Seville Orange, Bitter or Sour Orange, Bigarade: *Citrus aurantium* var. *amara* (Fam. Rutaceae); A: *Citrus bigaradia* (Nile Valley); G: *Citrus aurantium*, Fam. Rutaceae.
314. H, B, W, C, M: Coconut Palm: *Cocos nucifera* (Fam. Arecaceae).
315. Literally 'Indian nut'. See also cat. 149 in which title and illustration wrongly deal with the Coconut instead of the Cypress.
316. Levey (1962: 36, note 253) says that *muql* is the *bdellium*, the resin of a tree which was used in medicine.
317. F: Lote Tree: *Ziziphus lotus* (Fam. Rhamnaceae); B: Madagascar Plum: *Flacourtia ramontchi*; P, W, Q, T: Syrian Christ-thorn: *Ziziphus spina-Christi*; C: Lote Tree; Q: *sidr*: *Ziziphus spina-christi*; O: Crown-of-thorns: *Ziziphus spina-christi*; G: (*nabq* or *nabiq*) *Ziziphus napeca* or *Rhamna spina Christi*; Wehr 1976: *sidr*, 'a variety of Christ's-thorn (*Ziziphus spina-Christi*), or Lotus Tree'.
318. B, H, W, C, Q, M: Date Palm: *Phoenix dactylifera* (Fam. Arecaceae); G: = *Rfsyts*: *Phoenix dactylifera*, Fam. Palmaeae.
319. B, F, P, W, C, M: Rose: *Rosa* (Fam. Rosaceae); A: *Rosa damascena*, *R. gallica* (Nile Valley); R: *Rosa santa*; D: *Rosa lutea*; G: = *Rūdā*: Fam. Rosaceae.
320. B, F, W, P, C, M: Jasmine, Jasmine of Poetry, White Flowered Jasmine: *Jasminum officinalis* (Fam. Oleaceae); Z: *Jasminum grandiflorum*; G: *Jasminum*, Fam. Oleaceae.
321. W, C: Mouse-ear; T: *Bupleurum lancifolium*; E: *Hieracium pilosella*; *Cerastium triviale*; U: Mouse-eared Chickweed: *Cerastium semidecandron*; D: *Lithospermum purpureo-coeruleum*; G: = *Māyās ūtā*: *Myosotis arvensis*, *M. palustris*, Fam. Boraginaceae; X: *Myosotis*, Fam. Boraginaceae and *Arenaria Munbyi*, Fam. Caryophyllaceae; RC: *Myosotis*; *Anagallis arvensis*; SG: *Parietaria cretica*, Fam. Urticaceae [?].
322. This description fits with the majority of plants illustrated in this section. Consequently, only the presence of flowers or different leaf shapes will be indicated henceforth.
323. W: *Seidel Anemonearten*; P: = *Chrysanthemum*; C, E: Sunflower: *Chrysanthemum segetum*, *Helianthus annuum*; F: Chamomile:

- Helianthus annuum*; G: from Persian *ādhār-gūn*, 'red colours', *Calendula officinalis*, Fam. Compositae.
324. It is a Persian word. Steingass 1930: 'a flower yellow without and black within'.
325. B, Q, M: Camel's Hay, Scenanth, Geranium: *Andropogon Schoenanthus*; W: = *Idchir Schoenanthus*; O, D, SG: Cymbopogon: *Cymbopogon schoenanthus*; G: = *Sakhyūnīs*: *Cymbopogon schoenanthus* and *Juncus odoratus*, Fam. Gramineae.
326. W, C, E, U, B, S, F: Rice: *Oryza sativa* (fam. Gramineae); G: = *Ūrīzā*: *Oryza sativa* and Var., Fam. Gramineae.
327. B, W, E, U, S, F: Spinach, Garden Spinach, Spinage: *Spilanthus oleracea*, *Spinacia oleracea* (fam. Chenopodiaceae).
328. W, E, SG: Sea Onion, Scallion, Wild Onion: *Scilla verna*, *S. maritima*: Meerzwiebel; C: Wild Onion or Scallion; E, U, S: Scallion, Eschallot, Shallot: *Allium ascalonicum* (fam. Alliaceae); Wehr 1976: 'Wild Onion, Scallion, an Oriental variety of Sea Onion (*Scilla*)'; G: = *Sqīlā*: *Urginea maritima* or *Scilla maritima*, Fam. Liliaceae.
329. Literally 'the mouse's onion'. Wehr 1976: 'Sea Onion (*Scilla verna*)'.
330. Steingass 1930: *marg mūsh*: 'death of the mouse'.
331. This and the next four plants (cat. 192–6), all depicted on a single page, are published in Alpago 1991: pl. between 128 and 129.
332. W, C, E, U, S: Thistle: *Carduus* = *Cirsium* (fam. Compositae); Yellow Spined Thistle: *Cirsium ochrocentrum*; G: from Persian *ush-turghāz* 'Kamelfutter !': *Seseli tortuosum*, *Laserpitium latifolium*, *Thapsia garganica*, *T. silphia*, Fam. Umbelliferae; N, SG: *usturghāz* is Persian *shuturgāz*, the root of *Ferula asafoetida*, Fam. Umbelliferae, *Asafetida*. Alpago 1991: s.v. 'ushturghār' writes that in Persian it means 'camel' plus 'thorn'. The Persian for 'thorn' is however *khār* rather than *ghār*.
333. W, C: Alkali-plant; S, U, E, M, T: Soda Plant, Russian Thistle, Saltwort, Kali: *Salsola foetida*, *S. kali*, *Arthrocnemum glaucum* (fam. Chenopodiaceae); P: *Arthrocnemum glaucum* or *Anabasis articulata*; Wehr 1976: 'Potash, Saltwort (*Salsola kali*)'.
334. Lane 1863–93: 'the *ushnān*'; *harrād*: 'one who burns *hurḍ* [kali, or glasswort]'.
335. The reading of this name is uncertain. The London Qazvīnī reads *h.r.* whereas the Munich codex gives *h.r.w.* Unless the word is wrongly spelt in both manuscripts and it was originally *hurḍ* (see previous note), the only possible explanation is offered by Lane 1863–93, under the word *haran* [root *h.r.y*]: 'The place of laying eggs of the ostrich; the covert of a gazelle.' If the reading is correct, the name can be translated as 'the place where sparrows lay their eggs.' Siggel 1950a translates the word *hawr* as 'poplar', which is today the White Poplar in northern Saudi Arabia.
336. W, F, S, U, E, M, B: Absinth, Wormwood, Absinthium: *Artemisia absinthium* (fam. Asteraceae); G: = *Abū shinthiyā*: *Artemisia absinthium*, Fam. Compositae.
337. Wehr 1976: *sa 'tar*: 'wild thyme, *Thymus serpyllum*'.
338. B, E, S: Feverfew Chrysanthemum: *Chrysanthemum* = *Pyrethrum partenium* (Fam. Compositae); Marigold, Pot Marigold, Hen and Chicken: *Calendula officinalis* (Fam. Compositae); Dog's Fennel, Stinking May-weed, Stinking Chamomile: *Anthemis cotula* (Fam. Compositae); W: *Matricaria parthenium*; Y: *Chrysanthemum*

- indicum*; T: *Chrysanthemum coronarium*; C: Aster or Daisy; FAO: *Chrysanthemum cinerariaefolium*, *C. coccineum*, *C. roseum*; D: Bachelor's button; SG, G: = *barthāniyūn*: White: *Chrysanthemum parthenium* or *Matricaria parthenium* or *Pyrethrum parthenium*, *Fam. Compositae*. Yellow: *Chrysanthemum coronarium* and *C. segetum* (in Spain only), *Fam. Compositae*.
339. Steingass 1930: 'camomile'.
340. W: *Flachsseide*; C, E, U, S: Flax: *Linum usitatissimum* (*Fam. Linaceae*).
341. The Camomile (*bābūnaj*, *Matricaria chamomilla*, *Fam. Compositae*) is not illustrated. W, B, P, T, M, E, U, S: Chamomile, Wild chamomile, English Chamomile, Roman Chamomile: *Matricaria chamomilla*, *M. tridentata*, *M. aurea*, *Chamaemelum auriculatum*, *Anthemis nobilis*; B: also Chamomile: *Chamomilla officinalis*; A: *Achillea fragrantissima* (desert), *Matricaria chamomilla* (Cairo); D: *Anthemis chia*, *A. rosea*, *A. tinctoria*; G: = *Anthāmis*: White: *Matricaria chamomilla*, *Fam. Compositae*. Yellow: *Anthemis nobilis*, *Fam. Compositae*. The text reads: 'It is a well-known plant with yellow or white flowers.'
342. W, C: Citronella: *Zitronelle*, *Melisse*; B: Job's Tears, Coix Millet, Gromwell: *Coix lachryma Job*; E, U, S: Balm, Common Balm: *Melissa officinalis* (*fam. Labiatae*); Gromwell, Common Gromwell: *Lithospermum officinale* (*fam. Boraginaceae*); G: = *Baqkhāris*: (*bād-haranbūya* in Persian) *Melissa officinalis*, *Fam. Labiatae*; J: *bād-i-ranjah būyah*: Madwort: *Dracocephalum Moldavica*: 'the scented remedy for flatulent colic', *Fam. Labiatae* or *Asperugo procumbens*, *Fam. Boraginaceae*, but writes (89): 'The substitution of this plant for the well-known fragrant drug, *Bādranj-boia*, a remedy for asthma, still persists in Iran. Schlimmer writing about *Asperugo* says, "This plant, dried, is sold by the druggists of Tehran under the false name of *Bādranj-bou-yeh*, which is the true name of *Melissa cedronella*. I have never been able to understand the reason of this sophistication [...] because the true *Melissa* is largely cultivated in the gardens about Tehran.'"
343. Steingass 1930: *bādrang-bū* or *bādrang-būya*: 'mountain balm'.
344. W: *Ocimum*; T: = *hawk*: *farsetia longisiliqua*; R: *Ocimum basilicum*; G, SG: = *Ūqīmūn* (*bādharūj*): *Ocimum basilicum*, *Fam. Labiatae*.
345. The term translated as 'plant' is probably *jūk*; however, its reading is unclear. Only Dozy 1845 indicates that this word also means 'trunk'. The Persian word *hawk* is translated in Steingass 1930 as 'basil royal'; however, it seems incorrect in this case where the only logical translation is 'plant' or a synonym. The word *istinshāqa* means 'inhalation, sniffing', and is related to the properties of this particular plant.
346. B, W, P, M, E, U, S: Eggplant, Aubergine: *Solanum melongena* (*Fam. Solanaceae*); G: (*bādinjān* from Sanskrit *vangana*): *Solanum melongena*, *Fam. Solanaceae*.
347. B, C, W, U, S: Broad-bean, Fava Bean, Egyptian Bean, Horse Bean: *Vicia faba* = *Faba vulgaris* (*Fam. Leguminosae*); G: = *fābash al-yūnānī* (*bāqillā*): *Vicia faba*, *Fam. Leguminosae*.
348. W, C, E, F: Dragon's Blood: *Geranium robertianum* (*Fam. Geraniaceae*); R: *Adiantum capillus veneris*; G: = *Adiyāntūn* (*bar-shiyāwashān* in Persian, 'woman's hair'): *Adiantum capillus veneris*, *Fam. Polypodiaceae*. Steingass 1930: *barsiyāwishān* or *barsiyān*, 'shepherd's crook, maiden-herbs'. Alpago (1991: s.v. '*Birsiyāwashān*') writes that it is also called *kuzbar al-bīr*, or 'coriander of the well'.

349. The text reads 'black shading to black'; however, it is obviously a *lapsus calami*. The other manuscripts and editions agree on 'red shading to black'.
350. Afrāsiyāb was the King of Turan and Siyāvush was the son of the King of Iran. The story is told by Firdausī in the *Shāhnāma*. Siyāvush had gone into exile in Turan and was a good friend of Afrāsiyāb but they were forced against each other by Garsivāz, Afrāsiyāb's brother, who was jealous of Siyāvush. Eventually the two friends fought each other and Siyāvush was captured and later executed. Rogers writes in his translation of the *Shāhnāma* (Firdausī 1907: 208–9): 'His head is cut off over a bowl, into which his blood is allowed to flow, and the blood is poured out in a place pointed out by Afrāsiyāb. Some editions say that there sprang from this blood the plant called the blood of Siyāvush, which Möhl translates by the words "dragon's blood".'
351. B, E, F: Mugwort, Motherwort: *Artemisia vulgaris*, *A. absinthium* (Fam. *Asteraceae*); C: Dungwort; W: *Beifuss*; G: = *Arāmāsiyā* (in Persian *birinjāsaf*): *Artemisia arborescens*, *A. campestris*, *A. vulgaris*; J: Yarrow: *Achillea santolina*, Fam. *Compositae*.
352. B, W, S, U, E, M, Q: Onion: *Allium cepa* (Fam. *Alliaceae*); G: = *Qrūmiyān*: *Allium cepa*, Fam. *Liliaceae*.
353. B, U, E: Watermelon: *Citrullus vulgaris* (Fam. *Cucurbitaceae*); W: Pumpkin, Gourd; D: Pompion; G: = *Fāfun*: *Cucumis melo*, Fam. *Cucurbitaceae*.
354. B, W, M, E, U, S: Violet, Sweet Violet, Viola, Garden Violet: *Viola odorata* (Fam. *Violaceae*); G: = *İyun*: *Viola odorata*, Fam. *Violaceae*.
355. The Aconite's antidote (*būdabīsh* [?]) is not illustrated. The word is probably Persian. A: = *būdāiys* [?]: *Imperata cylindrica* (Damietta, Oases). The text reads: '[Ibn Sīnā says that] this herb grows near the Aconite, and the [plants of] Aconite which grow around [this herb] do not bear fruit; it is the most powerful antidote against Aconite.' Johnstone 1977 gives the names of *antula*, *jidwār*, *kuzbura al-tha'lab* and *ballūt al-arḍ* as plants known as antidote for Aconite, but none of them seems to correspond to this one. Research in Persian dictionaries has been unsuccessful: only the composed word *bo-dāna* ('smell, scent' plus 'seed'), translated by Steingass 1930 as 'a medicinal seed', could be related in some way to this plant. Dihkhūda's *Lughat-nāma* lists the plant called *fārat al-bīsh* ('the mouse of aconite') as an antidote against Aconite; thanks to the late Alexander Morton for this information.
356. W: *Buphthalmus*; E, U, S: Ox-eye, Spring Adonis: *Adonis vernalis* (Fam. *Ranunculaceae*); Ox-eye Daisy: *Chrysanthemum leucanthemum*; C: Spice; G: *Gagea*, Fam. *Liliaceae* or *Crysanthemum coronarium* (Daisy) or *Anacyclus radiatus*; X: *Buphthalmum spinosum*, Fam. *Compositae*.
357. Steingass 1930: 'ox-eye, a fragrant forest-herb resembling camomile'.
358. Literally 'its rose' (*ward*).
359. B, W, M, E, U, S: Aconite, Bikh Poison, Indian Aconite, Blue Rocket Monk's Hood, American Wolf's Bane: *Aconitum ferox*, *A. napellum*, *A. uncinatum* (Fam. *Helleboraceae*, Fam. *Ranunculaceae* [?]); G: = *Āqūnītun*: *Aconitum napellus*, Fam. *Ranunculaceae*.
360. Together with cat. 233, this is the only example where two different plants are possibly painted on the same foreground. An explanation in this case is that Aconite and Aconite's antidote are illustrated together

- perhaps because the text of the latter clearly states that they are found close to each other. See above, note 355.
361. The weight of one *dirhām* is presently 3.12 grams in Egypt. However, its weights in different regions and periods are numerous and contradictory. See Miles, 'Dirhām', *El2*.
 362. B, P, W, M, T, E, U: Lupin, Lupine, Egyptian Lupin: *Lupinus termis* (Fam. Leguminosae); C: Egyptian Bean; G: = *Tharmis* (turmus): *Lupinus albus* var. *termis*, Fam. Leguminosae.
 363. Literally 'at the turn between night and day'.
 364. B, W, Q, T, M, E, U, S, P: Garlic: *Allium sativum* (Fam. Alliaceae); G: = *Squrdiyūn*: *Allium sativum*, Fam. Liliaceae.
 365. The meaning is unclear: probably the full moon is intended.
 366. W, C, E, U, S: Millet, Broom Corn Millet, Proso Millet: *Panicum miliaceum* (Fam. Graminae); G: = *Kankharūs*: *Panicum miliaceum*, Fam. Gramineae and *Sorghum vulgare*, Fam. Gramineae.
 367. B, W, T, M, E, U, S: Rocket, Roquette: *Eruca Sativa* = *Versicaria* (Fam. Cruciferae); R: *Chondrilla juncea*; G: = *Üzimun*: *Eruca sativa*, Fam. Cruciferae.
 368. This Persian word has no diacritics in the text. The correct reading is offered by the Munich Qazvīnī. Steingass 1930: 'the herb rocket'.
 369. B, M, E, U, S: Carrot, Wild Carrot: *Daucus carota sativa* (Fam. Umbelliferae); B: also Parsnip: *Pastinaca sativa*; G: *Daucus carota*, Fam. Umbelliferae.
 370. P, U, S: Alhagi, Camel's Thorn, Prickly Alhagi, Sinai Manna: *Alhagi*, *A. maurorum*, *A. camelorum* (Fam. Leguminosae).
 371. Here al-Qazvīnī uses the Persian word *taranjibīn* for 'manna'. See Steingass 1930.
 372. Alpago 1991 gives *šadar* as 'biancospino', or 'hawthorn'.
 373. B, W, E, U, S: Thyme, Cone-headed Thyme: *Thymus capitatus*, *T. serpyllum* (Fam. Labiatae); G: = *Thūmus*: *Thymus serpyllum*, Fam. Labiatae and also *Satureja calamintha*, Fam. Labiatae and *Melissa officinalis*, Fam. Labiatae.
 374. The famous Greek author of *De Materia Medica*, a text known in Arabic as *Hayūlat 'ilāj al-tibb*, *Kitāb al-adwiya al-mufrada* or *Kitāb al-ḥashā'ish*. He was Pedanius Dioscorides, born in the first century BC at Anazarbe in Cilicia. After Galen, he is the most frequently quoted physician in medieval Arabic treatises. His most famous work was translated into Arabic from a version in Syriac by Iṣṭifān ibn Basīl, and edited by Ḥunayn ibn Ishāq in Baghdad in the third/ninth century. See Dubler, 'Diyuskuridis', *El2*.
 375. B, W, E, U, S: Cress, Swine's Cress, Watercress, Wart, Buck's Horn: *Senebiera* = *Coronopus* (Fam. Cruciferae); G: = *Qardāmūmun*: *Lepidium sativum*, Fam. Cruciferae (*Gartenkresse*, *Kardamon*) and *Nasturtium officinale*, Fam. Cruciferae.
 376. SG, Wehr 1976: 'garden peppergrass, *lepidium sativum*'.
 377. It is probably the Persian word *sapandān* or *sipandān*, translated by Steingass 1930 as 'the seed of wild rue, of the mustard, of the nasturtium'.
 378. B, M, E, U, S, W: Cardoon, Artichoke, Milk Thistle, Prickly Artichoke: *Cynara cardunculus*, *C. scolymus* (Fam. Compositae); St Mary's Thistle: *Silybum marianum*; G: = *Sqūlūmus*: *Cynara cardunculus* (Artichoke) and *C. cardunculus* subsp. *cardunculus* (Cardoon), and *C. cardunculus cardunculus* var. *sativa* (*Scolymus*), Fam. Compositae.

379. Steingass 1930: 'a kind of artichoke'.
380. B, W, Y, U, S: Harmel, Harmela Shrub, Wild Rue, Syrian Rue: *Peganum harmala* (Fam. Zygophyllaceae); Y, Z: also *Rhazya stricta decaisne* (Fam. Apocynaceae); G: = Mūlī: *Peganum harmala*, Fam. Zygophyllaceae.
381. The reading is uncertain due to missing diacritics. The only possible reading according to Steingass 1930 is *sipand*, 'wild rue'.
382. B, W, S, E, U: Star Thistle, Caltrops, Knapweed, Ironweed, Black Ray Weed: *Centaurea*, *C. calcitrapa*, *C. nigra* (Fam. Compositae); W, B, E, D: Caltrops, Land Caltrops: *Tribulus terrestris*; Y: *Xanthium spinosum*; G: = Ṭrūbīlus: *Tribulus terrestris*, *T. lanuginosus*, Fam. Zygophyllaceae.
383. B, W, P, M, U, S: Fenugreek, Common Fenugreek: *Trigonella foenum-graecum* (Fam. Leguminosae); G: = Ṭīlis: *Trigonella foenum graecum*, Fam. Leguminosae.
384. B, P, W, M, E, U, S: Chick-pea, Egyptian Pea, Common Cick-pea, Gram, Bengal Gram, Garbanzo: *Cicer arietinum* (Fam. Leguminosae); G: *Cicer arietinum*, Fam. Leguminosae.
385. B, T, E, U, S: Melilot, Swiss Melilot, Yellow Sweet Clover *Melilotus officinalis* (Fam. Leguminosae); Sweet Trefoil: *Trigonella coerulea* (Fam. Leguminosae); P: Aleppo Fenugreek: *Trigonella aleppica*; White Melilot, Sweet Melilot: *Melilotus alba*; W, C: *Lotus klee*; A: *Trigonella hamosa* (Nile Valley, Cairo); G: = Lūtūs (*ḥandaqūqa*): *Medicago sativa*, *Melilotus officinalis*, *Trigonella coerulea* and sometimes *Salsola kali*, Fam. Chenopodiaceae.
386. Steingass 1930 gives *dev-ispist* (*isfist*) as 'the lote tree'.
387. Q, T, M, Y, U, S, B, W: Colocynth, Bitter Apple, Bitter Gourd: *Citrullus colocynthis* = *Colocynthis vulgaris* (Fam. Cucurbitaceae); O: Desert Apple: *Citrullus colocynthis*; G: = Qulūqunthā: *Citrullus colocynthis*, Fam. Cucurbitaceae.
388. See the text related to this animal at cat. 262.
389. M, E, U, S, P, B, W: Wheat, Hard Wheat, Egyptian Wheat, Common Wheat: *Triticum vulgare*, *T. durum*, *T. sativum*, *T. aestivum* (Fam. Graminae); G: = Mūrā: *Triticum vulgare*, *T. sativum*, Fam. Gramineae.
390. Idrīs is mentioned twice in the Qur'an (19: 56–8 and 21: 85–6) as a prophet and a 'true' man (*ṣiddīq*). His identification is still debated by scholars: he is perhaps connected with Ezra or the apostle Andrew; he is also the cook of Alexander who achieved immortality by accident; Muslim legends identify him either with Akhnūkh (Enoch) or with Ilyās (Elijah), or Khidr, but he is also mentioned in astrological works as connected with Hermes. He is generally placed between the prophets Adam and Noah, and he was met by Muḥammad during his Journey to the Heavens (*mi'rāj*). See Vajda, 'Idrīs', *El2*.
391. E, U, B, S, W: Marsh Mallow, Mallow, Dwarf Mallow, Common Mallow, High Mallow: *Malva sylvestris*, *M. rotundifolia* (Fam. Malvaceae); G: = Mulūkhī (*khubbāza*): *Malva sylvestris*, Fam. Malvaceae.
392. M, E, U, S, B: Black Hellebore, Christmas Rose, Bear's Foot: *Helleborus niger* (Fam. Ranunculaceae); R: Hellebore: *Veratrum album*; G: = Allābūrus: *Helleborus niger*, Fam. Ranunculaceae.
393. Q, T, M, E, U, S, P, B, W: Black Mustard, Mustard, True Mustard, White Mustard, Salad Mustard: *Sinapis nigra* = *Brassica nigra*, *Sinapis alba*, *S. arvensis* (Fam. Cruciferae); G: = Sinabī: *Sinapis arvensis*, Fam. Cruciferae.

394. M, E, U, S, B, W: Lettuce, Common Lettuce, Prickly Lettuce: *Lactuca sativa*, *L. scariola* (Fam. Compositae); G: = *Trīdaq*s: *Lactuca sativa*, Fam. Compositae.
395. E, U, S, B, P: Caraway: *Carum carvi* = *Apium carvi* = *Seseli carvi* (Fam. Umbelliferae); G: = *Qārū*: *Carum carvi*, Fam. Umbelliferae.
396. M, E, U, S, P, B, W: Coriander: *Cornium sativum*, *Coriandrum sativum* (Fam. Umbelliferae); G: = *Qūriyūn*: *Coriandrum sativum*, Fam. Umbelliferae.
397. Also called *Balīnūs*. This author is identified in Islam either as Apollonius of Perge in Pamphylia (c. 200 BC) or as Apollonius of Tyana in Cappadocia (first century AD). The latter is usually called *ḥakīm* ('wise') as in this case; however, the two personalities appear to be often confused. Al-Qazvīnī sometimes quotes a *Kitāb al-khawāṣṣ* by Balīnās which has not yet been identified. See Plessner, 'Balīnūs', *El2*.
398. A flea-expeller plant called *kakwāsha* is not illustrated. The name of this plant is given in Persian. In Dihkhūda's *Lughat-nāma* the plant called *kaykwāsha*, composed of the words *kayk* ('flea') and *wāsha* (a Tabaristani word for 'plant'), is given as the Arabic equivalent of *ḥayyat al-barāghīth* ('the snake of fleas'). Dihkhūda also states that the Greek name of this plant is *dūqas*. Thanks to the late Alexander Morton for this information. The text reads: 'If you place some [leaves of this plant] in a bed where fleas [are found], [. . .] they will not be able to do any harm and will be caught easily.'
399. Q, M, U, S, P, B, W: Cumin, Cummin, Latency: *Cuminum cyminum* (Fam. Umbelliferae); G: = *Kūminūn*: *Cuminum cyminum*, Fam. Umbelliferae.
400. The Truffle (*kumāʿ*: *Trefezia*, Fam. *Tuberaceae*) is not illustrated. Q: Winter Truffle, Black Truffle, Grey Truffle, Red Truffle: *Trefezia claveriji*, *T. vittad*, *T. magnatum*, *T. melanosporum*, *T. michell*, *T. rufum*; G: = 'Udnā (*kam'a*): *Tuber melanosporum* or *Trefezia leonis*, Fam. *Tuberaceae*. The text reads: 'This plant grows underground. It has no seeds and no stem, but it [is born] like the precious stones in the depths of the soil.'
401. U, S, P, B, FAO: Lablab, Hyacinth Bean, Egyptian Kidney Bean, Bonavist, Lubia: *Dolichos lablab* = *Vigna savi* (Fam. *Leguminosae*); E, S, B: Corn Bind, Bindweed, Corn Lily: *Convolvulus arvensis*, *C. sepium* (Fam. *Convolvulaceae*); M, E, S, B, D: Ivy, Ground Ivy: *Hedera helix* (Fam. *Araliaceae*); A: *Dolichos lablab hortensis* (Nile Valley, Cairo); G: *Convolvulus arvensis*, Fam. *Convolvulaceae* and *Hedera helix*, Fam. *Araliaceae*.
402. This is confirmed by Alpago (1991: s.v. '*Ḥabl al-masākīn*'), who writes that it is a species of Lablab.
403. M, E, U, S, P, B, W: Waybread, Great Plantain, Ripple Grass: *Plantago major* (Fam. *Plantaginaceae*); O: Plantain: *Plantago ovata*; G: = *Arnuqālīs*: *Plantago* and Var., Fam. *Plantaginaceae*.
404. Hence the Arabic name *lisān al-ḥamal* or 'ram's tongue'.
405. The Sparrow's Tongue (*lisān al-aṣāfir*: *Polygonum aviculare*, Fam. *Polygonaceae*) is not illustrated, but see below, note 407. Its identification is uncertain. W, C, E, U, S: Sparrow's Tongue, Knotweed: *Polygonum aviculare* (Fam. *Polygonaceae*); B, J, SG: Antidysenteric Holarrhena: *Holarrhena antydisenterica* (Fam. *Apocynaceae*), so called by Abū Maṣṣūr, *Book of the Foundations of the True Properties of the Remedies* (970 AD); P, E, U, S: Larkspur, Rocket Larkspur, Forking

- Larkspur: *Delphinium consolida*, *D. ajacis* (Fam. Ranunculaceae); RC: the fruit of the Elm, *dardār*; SG: *Fraxinus*. The text reads: 'It is a plant similar to a sparrow's tongue. Its leaves heal wounds.'
406. W, T, E, U, S: Caper, Caper-bush: *Capparis cartilaginea*, *C. spinosa*; Caper-bush, Caper Spurge: *Euphorbia lathyris* (Fam. Euphorbiaceae); A: *Capparis galeata* (desert); G: = *Qabāris*: *Capparis spinosa*, Fam. *Capparaceae*.
407. One of these two plants may be interpreted as the illustration of the previous plant, the Sparrow's Tongue, which is apparently not illustrated (see above, note 405). For a similar case see cat. 207.
408. Steingass 1930: 'capers'.
409. M, E, U, S, B, W: Mandrake: *Mandragora officinalis* (Fam. Solanaceae); G: = *Mandraghūras*: *Mandragora officinarum*, Fam. Solanaceae. The text, however, does not describe the true Mandrake.
410. U, P, B: Lubia, Long Bean: *Dolichos lubia* = *Vigna savi* (Fam. Leguminosae); A: *Vigna sinensis* (Nile Valley); G: *Paseolus vulgaris* or *Vigna sinensis* (*Dolichos lubia* is obsolete), Fam. Leguminosae.
411. The text concerning this plant is two lines above its illustration. The painting is instead closer to the following text which describes the Mung Bean and the Mezereon. However, the illustration leaves little doubt that the painter, who had been left with only one blank space to fill for three different plants, decided to illustrate the Water Lily. W: *Nymphaea*: = *naylūfir*; A: = *nūfir*, *nawfir*: *Nymphaea lotus* (Rosetta); D: Water-lily; G: = *Nīmfa'ā* (*nilāfar*): *Nymphaea alba*, Fam. *Nymphaeaceae* and *Nuphar lutea*, Fam. *Nymphaeaceae*.
412. In the Munich Qazvinī it is stated instead that its flowers disappear overnight and are revealed during the day.
413. The Mung Bean (*māsh*: *Phaseolus mungo*, Fam. Leguminosae) and the Mezereon (*māzariyūn*: *Daphne mezereum*, Fam. Thymelaeaceae) are not illustrated. For the Mung Bean: P, U, S: Mung Bean, Green Gram, Golden Gram, Black Gram, Urd, Wooly Pyrot: *Phaseolus aureus* = *Phaseolus mungo* (Fam. Leguminosae); J: Mash: *Phaseolus radiatus* (Fam. Leguminosae). The text reads: 'It is a well-known plant. Ibn Sīnā said that it can be detrimental to sexual energy.' For the Mezereon: W, B, E, U, C, SG: Mezereon, Spurge Olive, Dwarf Laurel: *Daphne mezereum*, *D. oleoides* (Fam. Thymelaeaceae); G: *Daphne mezereum*, Fam. Thymelaeaceae. The text reads: 'It is a well-known plant. It has many varieties, small and large. The leaves of the large [varieties] are similar to those of the olive tree; the black variety is very poisonous. All varieties are useful against herpetic eruptions and leprosy, and they are more effective when mixed with sulphur.'
414. J: Mullein: *Verbascum thapsus* (Fam. Scrophulariaceae); W, U, S: *Menispermus edule* = *Cocculus cebatha* (Fam. Menispermaceae); SG: *Anamirta cocculus*, Fam. Menispermaceae; C: 'Grain of the Kings'. Steingass 1930: *māhīz*, 'the herb mullein, verbascum'; *māhī-zahra*, 'a poisonous yellow flowering milk-grass'.
415. The identification of the plant called *shubram* with the spurge is given both by Q: (*Euphorbia phytisa*) and by Steingass (1930), who transliterates it in Persian as *shibram*, 'spurge, sea lettuce'.
416. J writes (184): 'The narcotic action of mullein on fish appears to be well-known to the Arabs and Iranians, the meaning of *Māhī zahraj* being "fish poison".' SG writes that this plant is also called 'fish poison' (*samm al-samak*).

417. = *mardaqušh*. B, M, E, U, S: Marjoram, Sweet Marjoram, Annual Marjoram: *Majorana hortensis*, *Origanum majorana* (fam. Labiatae); G: = *Samsikhūn*: *Origanum majorana* or *Majorana hortensis*, Fam. Labiatae.
418. W, B, E, S: Nard, Mat-grass, Wire Bent-grass: *Nardus rustica, stricta* (Fam. Graminae); Spikenard: *Sison amonum* (Fam. Umbelliferae); M, R, D: Heal-all, Valerian, Nard; G: = *Nārdus*: *Nardostachys jatamansi*, Fam. Valerianaceae (Indische Nard); *sunbul rūmī* is *Valeriana celtica*, Fam. Valerianaceae; *sunbul barrī* is *Nardus rustica* or *Asarum europaeum*.
419. W, E, U, S, C: Anise, Anny: *Pimpinella anisum* = *Anisum officinarum* = *Anisum vulgare* (Fam. Umbelliferae); G: = *Āmmī* (*nānakhwāh*): *Ammi visnaga*, *A. majus*, Fam. Umbelliferae (from Persian *nān-khwāh*, in Arabic *ṭālib al-khubz*, 'he who asks for bread').
420. T, M, E, U, S, P, B, W: Narcissus, Poet's Narcissus, Daffodil, Jonquil, Lent Lily, Primrose Peerless: *Narcissus tazetta*, *N. biflorus*, *N. poeticus*, *N. pseudo-narcissus*, *N. jonquilla* (Fam. Amaryllidaceae); G: = *Narkissus*: *Narcissus tazetta*, *N. poeticus*, *N. pseudonarcissus*, Fam. Amaryllidaceae.
421. Galen, Jālīnūs to the Arab writers, was born in Pergamon, Asia Minor, in 129 AD, and died in Rome about 199. He was the last great medical writer of Greek antiquity, and also a physician, surgeon and pharmacologist. His numerous works were translated into Arabic between the seventh and the ninth centuries and greatly influenced all later physicians, including al-Rāzī and Ibn Sīnā. See Walzer, 'Djālīnūs', *EI2*.
422. While man is made of flesh and bone, jinns are regarded in Islam as being made of fire or smoke; nevertheless, they belong to a category of the animal kingdom. They have a hierarchic society and families, and behave similarly to man; there are Muslim and non-Muslim jinns and they can be good or evil. An extensive literature on the subject exists, a selection of which is listed below. Al-Qazvīnī, in accepting the existence of jinns (a belief which is still common among Muslims to the present day), assigns to them the second place in the hierarchy of the animal kingdom, after man and before the mounts. The main Arabic sources for the study of jinns are found in the works of al-Būnī, al-Suyūṭī and Buqrāṭ. See Doutté 1909, Thorndike 1923, Basset 1924, Winkler 1930, Dubouloz-Laffin 1933, Tritton 1934, Christensen 1941, Zbinden 1953, Stieglecker 1962, Fahd 1966, Vacca 1967, Goldziher 1968, Marquès-Rivière 1972, Teuma 1978, Lagarde 1981, Carboni 1986, Carboni 1988: 47–61 and Macdonald et al., 'Djinn', *EI2*.
423. This jinn is also called Dilhān. The word *dhilhāth* is translated in the dictionaries as 'lion-hearted, courageous, strong'.
424. The same story is reported by Basset 1924, I: 156, no. 34, under the title 'Le démon antropophage'.
425. The *Nasnās* are a people provided with only one hand and one leg, of large size, who proceed by jumps and run at great speed. They are found in Yemen and in some non-Arab countries. The Arabs hunt and eat them. See Carra de Vaux 1898: 25–6.
426. See the same description in Tritton 1934: 716, taken from al-Jāhīz 1982, VI: 63.
427. Published in Berlekamp 2011: fig. 34.
428. Jābir was one of the Companions of the Prophet. He used to hold a

- study circle in the mosque at Medina, where students were given instruction in hadith. He is also reported to have written a book on the *hājj* (pilgrimage to Mecca and Medina). See Hammam ibn Munabbih 1979: 41.
429. On the complex problems concerning Iblīs in the Islamic religious tradition, see Wansinck, 'Iblīs', *El2*.
 430. Cat. 245–7 are listed together because the paintings do not show any close relation to the text, part of which has been translated after the description of the three entries. They represent a noteworthy exception to the rule of a very close relation between text and illustration that occurs throughout the manuscript. Also, cat. 248 and cat. 249 belong to the same text concerning King Solomon, but they are truly descriptive of the text and have therefore been dealt with individually. The three illustrations are published in Carboni 1988–9: pl. VIC–D and Berlekamp 2011: figs 35–6.
 431. Many Muslim authors deal in their texts with the power exerted by Solomon over jinns and demons, which is also mentioned in the Qur'an (21: 82, 34: 12–14 and 38: 37). They were forced to work according to his will and if they disobeyed they were threatened with the pains of hell. Jinns were employed as pearl divers and constructed shrines, statues and costly vessels for Solomon. At his death, they were eventually released from their labours. See Walker, 'Sulaimān', *El2* and Sidersky 1933: 115.
 432. Solomon's ring had a special magic power. A six-pointed star known as 'Solomon's seal' (*khatam sulaymān*) was cut on its bezel: it was formed by two triangles, one of the two upside down, as a symbol of the intimate relation between the upper and the lower spheres. See Farès 1959 and Carboni 1988: 52–3.
 433. Probably cat. 246, showing a dog or wolf facing a hare, is intended to represent this story. Nevertheless its illustration is not located next to the text it describes.
 434. According to a hadith, the Prophet ordered black dogs to be killed because they were evil jinns. See Vacca 1967: 649–50.
 435. *Barbat* is a Persian and not an Arabic word. Steingass 1930: 'a harp or lute'.
 436. Published in Carboni 1988–9: fig. 1.
 437. Possibly one of the early Meccan converts to Islam, and one of the ten believers (*al-ashara al-mubashshara*) to whom Paradise was promised. He conducted military campaigns in Syria, and Caliph 'Umar intended to nominate him as his successor in 18/639, but he died during an epidemic at the age of fifty-eight. See Gibb, 'Abū 'Ubayda', *El2*.
 438. A poet of the *jāhiliyya*.
 439. Al-Qazvīnī here uses the word *shujā'* which also identifies the constellation of Hydra (cat. 8).
 440. The same story appears in Carra de Vaux 1898, where it is embellished by the presence of a black snake which is behind the serpent and is killed by the man. In this way the man saved the jinn's life twice because the black snake was one of its slaves and was trying to kill it. The story of the snake-jinn whose life was saved by the poet 'Abid and turned into a camel in order to help him is also quoted by Canova 1990: 200, as taken from the *Kitāb al-aghānī* by Abū al-Faraj al-Isfahānī.

441. Published in Carboni 1988–9: fig. 1.
442. The reading of the tribe to which this man belonged is uncertain but probably correct. The Munich Qazvīnī (fol. 168r: 12) is clear in stating that it is a tribe: *rajul min āl al-ḥarith* ('a man from the people of al-Harith'). The London Qazvīnī reads *rajul min balḥarith* ('a man from the Balharith'). Neither text reports however the name with a long *alif* between the letters *hā* and *rā*, the usual spelling of the name of the tribe of the Banū al-Harith. The Banū al-Hārith ibn Ka'b, usually called Balḥarith, were an Arab tribe belonging to the Yemeni group. See Schleifer, 'Hārith b. Ka'b', *El2*.
443. One of the many names given to devils, demons and spirits.
444. The same story is reported in Tritton 1934: 721–2 as taken from al-Qazvīnī.
445. Another name for a spirit or demon. The *ʿāmir* is generally regarded as a good jinn living in a house or somewhere near human beings, ready to help them.
446. Published in Carboni 1988–9: pl. VIID.
447. As a rule, chest, belly and hindquarters of four-legged animals are painted in gold.
448. The Mule is a hybrid born of a male ass and a female horse.
449. Published in Carboni 1988–9: fig. 5.
450. Published in Carboni 1988–9: fig. 4.
451. There are only two species of the *Gen. Camelus*, which are distinguished by the number of their humps: *Camelus dromedarius* has a single hump; *Camelus bactrianus* has two humps and is found mainly in Central Asia. In the illustration, the painter seems to have intended to depict a Bactrian camel. However, perhaps because more familiar with dromedary camels given the reputed area of production of the manuscript, he neglected to draw a second hump!
452. This passage is reminiscent of a chapter of the *Rasā'il ikhwān al-safā'* ('The Epistles of the Brethren of Purity'), entitled 'The Case of the Animals versus Man', where the king of jinns must decide whether man made domesticated animals his slaves against their will or whether he is their natural master by God's will. See Goodman 1978.
453. Literally 'you goat among goats'.
454. The Gazelle is more commonly called *ghazāl*, a name which is absent in al-Qazvīnī's work; *zabī* is also Antelope but its description here identifies it as the Gazelle.
455. The Musk Gazelle is mentioned in Marco Polo's *Il milione* as coming from the Kansu region; he apparently brought its head and hoofs back to Venice (see Olschki 1957: 151).
456. Transliterated also as *iyyal* or *uyyal*.
457. *Dama dama* is the most common species of deer found in Europe and Asia Minor. The *Fam. Cervidae* includes seventeen genera and fifty-three species of deer. The miniature painting clearly depicts a stag with branching horns as it is described in the text. However, the text also describes it as a 'mountain goat' (*al-ma'z al-jabālī*) which 'throws itself down from the rocks', a description which better suits a Steinbock. The animal here illustrated is therefore likely to be a Steinbock, a view supported by the identification of the *yamūr* as a Stag (fol. 114r, not illustrated; see below, note 475).
458. The Jackal belongs to the same family as dogs and wolves. *Canis*

- aureus* is the most common species of Jackal in the Middle East, while in East Africa *Canis mesomelas* is also found.
459. *Mustela mustela* includes ten species of Weasel, all common in the Middle East.
 460. See also the text on the Otter, cat. 116.
 461. *Gen. Lepus* includes twenty-six species of Hare, of which the most common in the Middle East are *Lepus europea*, *L. timidus* and *L. capensis*.
 462. Literally 'ass-ear'.
 463. The literature on the unicorn, its myths and legends, and its lore is vast. In al-Qazvīnī's text there are five animals with a single horn: the Rhinoceros (*karkadann*, cat. 28 and 277), the Hare-like animal called *mi'rāj* (cat. 43), the Narwhal (*qūqī*, cat. 115), the *ḥarīsh* (here translated as the 'Unicorn', cat. 268) and the animal called *shāh-dhāwār* (missing between fol. 110 and fol. 111 in the London Qazvīnī; see the Description by Folio. It is described in other copies as provided with a horn with many holes through which a sound is heard: all the animals gather together when they hear such a beautiful sound). An important monograph on the unicorn in Muslim iconography is Ettinghausen 1950, where a thorough discussion of the subject and a good bibliography is found. For an updated bibliography and further reading see Contadini 1992 and Contadini 2012.
 464. A place in Khwārizm, according to al-Qazvīnī in his *Āthār* 1960: 527: 'And those who travel from Khwārizm on the road of Sakhsīn see the water [of a lake] on their way.'
 465. Unidentified. Its name is probably Persian: Steingass 1930 gives 'a strong she-camel, a huge female animal'. The characteristic of this animal is that its newborn cub remains half inside the mother's body, occasionally protruding in order to feed itself like a marsupial. Its description as an elephant-like animal is unhelpful toward its identification.
 466. The text on the Sinād in the London manuscript ends here because the following folio is missing. The Munich Qazvīnī and the Cairo edition inform the reader that the mother Sinād's tongue is so sharp that when she licks her cubs' skin she can tear it to the bone, and this is the reason why they run away from her. According to al-Qazvīnī, al-Bīrūnī mentions that this animal lives in India.
 467. *Hyaena hyaena* is the most common Hyaena. The Spotted or Laughing Hyaena is *Crocota crocuta*, a different genus of the *Fam. Hyaenidae*.
 468. See the text on the Hare, cat. 266.
 469. Steingass 1930: 'the mongrel whelp of a wolf and a hyaena.'
 470. The identification of this animal with the Caracal Lynx is definite: it is the only species of Lynx found in the Middle East and the description suits it well.
 471. Literally 'black ear'.
 472. The Polecat (or Ferret) (*falā*: *Fam. Mustelidae*, *Ord. Carnivora*) is not illustrated. The identification of this member of the *Fam. Mustelidae* is uncertain: it is briefly described in the text as 'smaller than a Weasel, delicately ash-coloured'. Excluding the Marten and the Weasel (cat. 271 and 265 respectively), this animal must be either a Polecat or a Ferret.
 473. Published in Carboni 1988–9: fig. 2 and in Alpago 1991: pl. between 128 and 129.

474. *Rhinoceros unicornis*, the 'One-horned Rhinoceros', is the animal described by al-Qazvinī, which is found in Northeast India and Nepal, while *R. sondaicus* is in Bengal and Southeast Asia. The African Black Rhinoceros or Two-horned Rhinoceros belongs to a different genus, *Diceros bicornis*.
475. The Stag (or the Roe Deer, *yāmūr*) is not illustrated. This animal is called in the literature either *yāmūr*, *tāmūr* or *yahmūr*. Under the last name it is generally found in dictionaries as 'Deer, Roe, Roe-buck' (see Wehr 1976) under the root *h-m-r*. The animal is described by al-Qazvinī as 'a shy wild animal provided with two saw-like horns and similar to the wild cow', easily hunted when its horns get entangled among the branches of the trees and it starts bellowing. Its identification is uncertain since the size of its horns would more suit a Stag or a Steinbock (cat. 263). The animal referred to here is likely to be a Stag (see above, note 457) whereas cat. 263 is a Steinbock.
476. The identification is given only by AM, under the name *abū barāqish* or *shurshūr*. The meaning of the name of this bird is 'the father of many-colours' from the verb *barqasha*, 'to variegate, embellish with colours'. Wehr 1976 also gives *birqish* as 'finch', but it does not seem a satisfactory identification of this bird according to its description. N gives the name *Abū farāsh*, 'father of butterflies', for it. S: = *shurshūr*: *fringilla*, the Finch. According to its description, it is probably a species of wading bird, but cf. Lane 1863–93 (where it is described as similar to the Crested Lark): 'a small wild bird, like the *qunbur* [Crested Lark], the upper part of whose feathers is dust-coloured and the middle red, and the lower part black, so that when it is roused, or provoked, it ruffles its feathers and becomes variously changed in colours.'
477. *Bū-qalamūn* is the Chameleon in Persian, while *bū-qalamūnī* means 'variegated, motley' (Steingass 1930). This textile is referred to several times by the Persian traveller Nāṣir-i Khusraw in his *Ṣafarnāma* (see the French translation Schefer 1970, and the English translation Thackston 1986). He visited Egypt, Syria and the Arabian Peninsula between 437/1035 and 444/1042. The Persian traveller informs us that the *būqalamūn* is produced only at Tinnis on the Nile Delta, and its colour changes according to the different hours of the day. It is exported to both East and West (p. 111 of the French edition). The *būqalamūn* is made for the sultan and is used as a saddle-cloth for his camels (pp. 113–14). The sultan's tents and pavilions are made of satin of Rūm and *būqalamūn* (p. 137). Its colours recall those used on the lustreware produced in Egypt at that time (p. 151, quoted also by Grabar 1973: 186). According to Serjeant 1972: 143, the *būqalamūn* is also mentioned earlier than Nāṣir-i Khusraw by al-Jāḥiẓ and al-Mas'ūdī (ninth to tenth centuries); al-Jāḥiẓ reports that it is one of the crimson-coloured, Greek (i.e. from Rūm), kingly textiles. Serjeant concludes that 'this crimson dye seems to have come from Armenia in particular'.
478. The identification of this bird with the nightingale is given in E and AM where it can also be named *hazār*. The nightingale, however, is more commonly identified by the name *bulbul* (cat. 286).
479. The abbreviation 'var.' indicates that a great number of known varieties, or species, of 'Anser' birds live in the Middle East. This abbreviation is used throughout with the same meaning.

480. E gives eight varieties: *Anser fabalis*: Bean Goose; *A. albifrons*: White-fronted Goose; *A. erythropus*: Lesser White-fronted Goose; *A. anser*: Greylag Goose; *Branta leucopsis*: Barnacle Goose; *B. bernicla*: Brent Goose; *B. ruficollis*: Red-breasted Goose; *Alopochen aegyptiacus*: Egyptian Goose. O gives six varieties, differing from the previous list in *Cygnus olor*, *C. cygnus* and *C. colombianus*. Another Arabic name to identify the same family is *baṭṭ*. S gives *iwazz barrī* as *Anser cinerea*: Wild Goose.
481. This is a convention followed by the painter throughout the manuscript for many birds.
482. S: *Accipiter gentilis*; EI2: from Persian *bāz*: Goshawk, also called *bāzī*, *bāzⁱⁿ*; N: Falcon; O: *Falco amurensis*, *F. subbuteo*, *F. colombarius*, *F. concolor*, *F. cherrug*, *F. peleginoides*, Fam. Falconidae; E: *Micronisus gabar*: Gabar Goshawk, *Accipiter gentilis*: Goshawk; M: = *ṣaqr ḥurr*: *Falco biarmicus*: Lanner Falcon, = *ṣaqr shāhin*: *F. peregrinus*: Peregrine Falcon.
483. O: *Falco tinnunculus*, *F. Naumanni*, Fam. Falconidae; M, E, N, EI2, S: *Accipiter nisus*: Sparrow Hawk; S: also *Accipiter badius*.
484. O: *Psittacula krameri*, Fam. Psittacidae; EI2: Parakeets, Parrots.
485. O: *Pycnonotus xanthopygos*, *P. leucogenys*, Fam. Pycnonotidae; E: *Pycnonotus xanthopygos*: Black-capped Bulbul, *P. barbatus*: Common Bulbul, Fam. Pycnonotidae, Ord. Passeriformes; N: *Pycnonotus leucotis*, *P. xanthopygos*: often Nightingale, the Bird of the Thousand Songs; EI2: Nightingale; S: *Pycnonotus*: Bulbul.
486. *Hazār*: a bird called 'of the thousand voices', a species of Nightingale; *dastān*: 'melody, trill, key of a musical instrument' (Steingass 1930).
487. E: general name for Owl, *Tyto alba*: Barn Owl, Fam. Tytonidae, Ord. Strigiformes, *Bubo bubo*: Eagle Owl, *Athene noctua*: Little Owl, *Strix butleri*: Hume's Tawny Owl, *Asio otus*: Long-eared Owl, *Asio flammeus*: Short-eared Owl, Fam. Strigidae, Ord. Strigiformes; O includes in addition to E: *Otus scops*, *O. brucei*, *O. senegalensis*, *Bubo africanus*; N: Owl.
488. The identification with the Pheasant is not given in specialised literature but only in dictionaries (see Wehr 1976).
489. The Weaverbird (*tanawwut*: *Ploceus*, Fam. Ploceidae, Ord. Passeriformes) is not illustrated. The identification of this bird is given only by AM: 190 and 233.
490. E, O: *Tetrax tetrax*: Little Bustard, *Chlamydotis undulata*: Houbara, Fam. Otidae, Ord. Gruiformes; M: *Otis tetrax*: Little Bustard, *Otis tarda*: Great Bustard, *Chlamydotis undulata*: Houbara Bustard.
491. E, M, N, EI2: generic name for Kites, *Milvus migrans*: Black Kite, *M. milvus*: Red Kite, Fam. Accipitridae, Ord. Accipitriformes; O includes in addition to E: *Elanus caeruleus*: Black-winged Kite; S: = *ḥidāya*: *Milvus* *lanceolus*.
492. E, M, N: general name for Pigeon and Dove, *Columba livia*: Rock Pigeon, *Columba oenas*: Stock Pigeon, Stock Dove, Fam. Columbidae, Ord. Columbiformes; O includes in addition to E: *Columba palumbus*, *Treron waalia*, *Streptopelia orientalis*, *S. decaocto*, *Oena capensis*; EI2: a collective substantive which denotes any bird 'which drinks with one gulp and coos'. More specific names are *warashān*: Ring Dove or Woodpigeon (see cat. 360), *yamām*: Stock Dove or Blue Dove, *shifnīn* and *qumrī*: Turtle

- Dove (see cat. 304 and cat. 321), *fākhita*: Collared Turtle Dove (see cat. 317).
493. E: generic name for Martin and Swallow, *Hirundo rustica*, Fam. *Hirundinidae*, Ord. *Passeriformes*; in modern Arabic also a general name for Tern, *Sterna*, Fam. *Sternidae*, Ord. *Gruiformes*; O: *Apus melba*, *A. pallidus*, *A. apus*, *A. affinis*, Fam. *Apodidae*, *Riparia paludicola*, *R. riparia*, *Pytonoprogne fuligula*, *P. rupestris*, *Delichon urbica*, *Hirundo daurica*, Fam. *Hirundinidae*; S: = *samāma*, *Gypselsus*: Martin, the Swallow being *sunūnū*; see also *waṭwāt* (cat. 331).
494. The Bat and the Firefly (not illustrated at fol. 126v) are the only flying animals of this section which are not birds. W: Bat is the general name for the mammal of the order of *Chiroptera*, which includes six families found in the Middle East: *Pteropodidae* (thirty-eight genera with 130 species), *Rhinopomatidae* (one genus, four species), *Emballonuridae* (thirteen gg., forty spp.), *Rhinolophidae* (two gg., fifty spp.), *Vespertilionidae* (thirty-eight gg., 275 spp.) and *Molossidae* (twelve gg., eighty spp.).
495. O, M, *El2*: *Francolinus pondicerianus*, Fam. *Phasianidae*, Ord. *Galliformes*; M: also *Alectoris barbara*: Barbary Partridge; N: *Francolinus vulgaris*: Francolin, Black Partridge.
496. The Hen is obviously the Rooster's female. This is the only bird which is dealt with by al-Qazvīnī separating male and female in two entries.
497. E, M, S: *nasr* (see cat. 328) and *rakhama* are generic names for Vulture; *rakhama* is *Neophron percnopterus*: Egyptian Vulture, Fam. *Accipitridae*, Ord. *Accipitriformes*; N: *Vultur percnopterus*.
498. The reading is uncertain as either *tāfiyūn* or *tāqiyūn*. Neither one is self-explanatory to understand the original meaning of this stone with magical properties.
499. S: *ghurāb al-zāgh*: *Corvus corone*. See also the story of the Eloquent Rook and Yahyā ibn al-Aktham (cat. 366–7).
500. E, O, N, S: *Sturnus vulgaris*: Starling, *S. roseus*: Rose-coloured Starling, Fam. *Sturnidae*, Ord. *Passeriformes*; O includes in addition to E: *Creatophora cineracea*, *Onychognathus tristramii*, *Sturnus pagodarum*, Fam. *Sturnidae*.
501. The identification with *Accipiter gentilis*: Goshawk (see cat. 283) is given by AM where it is called *zummaj* or *shāh bāz*. The name *zummaj* is found neither in *El2* in the article 'Bayzara' nor in Lane 1863–93, while *Lisan al-'arab* describes it as a bird similar to the eagle which is used in hunting: the top of its head is red, and is called *dū-barādrān* in Persian.
502. Not found in Steingass 1930, where *zimkī* is the rump of a bird, and *ramak* (differing in one diacritical) is a flock.
503. E, O, M, N, *El2*: *Coturnix coturnix*, *C. delegorguei*, Fam. *Phasianidae*, Ord. *Galliformes*.
504. N: *shunqār*: Falcon; *El2*: *sunqūr*, *shunqūr*, *shunqār*: Gerfalcon, *Falco rusticolus*; imported from Siberia, it was quite expensive and often figures among ceremonial gifts.
505. E, O, M, *El2*, S: *Falco peregrinus*: Peregrine Falcon, *Falco pelegrinoides*: Barbary Falcon, Fam. *Falconidae*, Ord. *Accipitriformes*; N: Royal Falcon, Gerfalcon.
506. N: a kind of pigeon; *El2*: *shifnīn* is *Streptopelia turtur*: Turtle Dove in Iraq, known as *qumrī* (see cat. 321) in Egypt; R: *Streptopelia turtur arenicola*: Turtle Dove, but also = *yamām*: *Columba cambayensis*

- (*yamām* is given by *El2* [in the article on the Pigeon, *ḥamām*] as Stock Dove or Blue Dove and is not included in al-Qazvīnī's list of birds).
507. The reading is uncertain. The word *tīrak* is the diminutive of *tīr* which, according to Steingass 1930, is (among many other meanings) 'a certain bird resembling a pea-hen'. This is the only satisfying explanation for this Persian word.
 508. O: *Coriacias garrulus*, *C. abyssinicus*, *C. benghalensis*, *Fam. Coriaciidae*; N: *shaqirraq*: Green Woodpecker, *Picus viridis* or *Coriacias garrula*; S: = *ākhil*: *Loracida garrulus*, Roller. Lane 1863–93: called also *ākhil*, a certain bird speckled or spotted with green, red, white and black, found in the land of Haram.
 509. Steingass 1930: 'name of certain birds: a kind of swallow, the bee-eater, the green magpie'.
 510. AM: *ṣafir*: Golden Oriole, *Oriolus oriolus*, *Fam. Oriolidae*, *Ord. Passeriformes*; E: = *ṣuffayr* [?]: Golden Oriole; O: = *ṣafariyya*: *Oriolus oriolus*; N: gives *ṣāfir* as al-Qazvīnī; S: *ṣafariyya*: *Oriolus galibula*.
 511. N says that this bird hangs from a branch calling out, 'I have fallen!' When the other birds gather around it, it eats one of them.
 512. E: general name for Falcon; *Falco naumanni*: Lesser Kestrel, *F. tinnunculus*: Kestrel, *F. eleonora*: Eleonora's Falcon, *F. concolor*: Sooty Falcon, *F. biarmicus*: Lanner, *F. cherrug*: Saker Falcon, *Fam. Falconidae*; also *Buteo buteo*: Buzzard, *B. rufinus*: Long-legged Buzzard, *Fam. Accipitridae*; O: *Circus aeruginosus*, *C. pygargus*, *C. cyaneus*, *C. macrourus*, *Accipiter gentilis*, *A. nisus*, *A. brevipes*, *Melierax metabates*, *Fam. Accipitridae*; *El2*, S: *Falco cherrug*: Saker Falcon.
 513. AM: Grouse, any genus of the family of the *Tetraonidae*, but especially *Gen. Lagopus*: Ptarmigan. Among the various genera are *Lagopus*, *Tetrao*, *Lyrurus*, *Tetrastes* and *Falcipennis*. *El2*, 'Bayzara', mentions this bird as See-see.
 514. Steingass 1930: 'a species of partridge; *tīhū* is a bird smaller than a partridge, a quail'.
 515. E, S: general name for *Passer spp.*; *Passer domesticus*: House Sparrow, *P. hispaniolensis*: Spanish Sparrow, *P. simplex*: Desert Sparrow, *P. montanus*: Tree Sparrow, *P. luteus*: Sudan Golden Sparrow, *Petronia brachydactyla*: Pale Rock Sparrow, *Fam. Passeridae*; *Carduelis carduelis*: Goldfinch, *C. cannabina*: Linnet, *Fam. Fringillidae*; O includes in addition to E: *Petronia xanthocollis* and the species of the *Fam. Remizidae* and *Zosteropidae*.
 516. E, *El1*, N, S: generic name for Eagle; *Aquila pomarina*: Lesser Spotted Eagle, *A. clanga*: Spotted Eagle, *A. nipalensis*: Steppe Eagle, *A. rapax*: Tawny Eagle, *A. heliaca*: Imperial Eagle, *A. chrysaetos*: Golden Eagle, *A. verreaux*: Verreaux's Eagle, *Hieraaetus pennatus*: Booted Eagle, *H. fasciatus*: Bonelli's Eagle, *Fam. Accipitridae*; *Pandion haliaetus*: Osprey, *Fam. Pandionidae*; O includes in addition to E: *Haliaetus*, *H. leucoryphus*, *H. albicilla*, *Circaetus gallicus*, *Fam. Accipitridae*; M includes in addition to E: *Circaetus gallicus*: Short-toed Eagle.
 517. At fol. 64v, lines 16–18, al-Qazvīnī mentions a 'Spring of the Eagle' (*'ayn al-'uqāb*) but the text here does not report the story.
 518. Published in Carboni 1988–9: pl. VIIIb.
 519. S: = *tharthār*: Pica-pica.
 520. Published in Carboni 1988–9: pl. VIIIb.
 521. See Pellat, 'Ankā', *El2*, and Baer 1965: 29–49, esp. 38–42, for a general treatment of the subject and a bibliography. The origin of this bird

- must probably be traced back to the Phoenix mentioned by the Greek authors as living in the deserts of Arabia. In the Islamic period it is also called *sīmurgh* and has an important part in Persian literature (see for example Firdausī's *Shāhnāma* and 'Aṭṭār's *Conference of the Birds*). It can also be identified with the giant bird Rukh mentioned by many Arab geographers. Some authors give precise descriptions of this bird at the same time acknowledging that it is extinct, but others claim that the Fatimids possessed specimens of it in their zoos. According to Pellat, there is no doubt that it is a type of heron. Some Arab authors (among them al-Mas'ūdī, al-Zamakhsharī, al-ʿAwfī and al-Damīrī) state that the 'Anqā is a human-headed bird with a strong beak like that of a bird of prey. However, the attribute of the human head was omitted at an early date by al-Jāhīz (ninth century AD), who identified the bird with the *sīmurgh*. Al-Qazvīnī appears to follow al-Jāhīz although he also mentions the story of the prophet Ḥanzala, which is usually associated with the authors describing a human-headed 'Anqā.
522. According to a legend which apparently emerged in the third/ninth century, Ḥanzala ibn Safwān was a prophet of the *fatra* (the 'interval' or period of time between the advents of Christ and Muhammad). He has been confused with another prophet, Khālid ibn Sinān, who is regarded as the first prophet of the *fatra*. Ḥanzala was sent to the 'People of the Ditch' (*aṣḥāb al-raṣṣ*), mentioned in the Qur'an among the unbelievers, who maltreated him and threw him in a well before being destroyed themselves. Ḥanzala is mentioned here because he played a role in the removal or destruction of the 'Anqā bird, which used to live on a mountain in the region of the *aṣḥāb al-raṣṣ* and was ravaging them. See Pellat, 'Ḥanzala b. Safwān', *El2* for further reading.
523. Published in Goodacre 1983: 10.
524. E, O, *El2*, N: *Corvus splendens*: House Crow, *C. corone*: Hooded Crow, *C. ruficollis*: Brown-necked Raven, *C. corax*: Raven, *C. rhipidurus*: Fan-tailed Raven, *Fam. Corvidae*, *Ord. Passeriformes*; *Coracias garrulus*: Roller, *C. abyssinicus*: Abyssinian Roller, *Fam. Coraciidae*, *Ord. Coraciiformes*; S includes in addition to E: *Pyrrohorax pyrohorax*, *P. graculus*.
525. E: *gharnūq*: Cattle Egret, *Egretta Ibis*, *Fam. Ardeidae*, *Ord. Ciconiiformes*; M: *Anthropoides virgo*: Demoiselle Crane; N: *ghurnayq*: *Ardea ciconia*: White Stork, *Ardea nigra*: Black Stork, *Ardea virgo*: Numidian Crane, *Ardea cinerea*: Heron. Another common name for the Crane is *kurkī* (see cat. 323), which identifies a bird of the family of the *Gruidae*, and not of the *Ardeidae* as in the present case. See also below, note 539.
526. In Arabic *al-mantiq*. Here al-Qazvīnī is probably referring to Aristotle.
527. E: general name for Grebe and Diver, *Fam. Podicipedidae*; O: *Podiceps nigricollis*, *P. auritus*, *P. cristatus*, *Tachybaptus ruficollis*, *Fam. Podicipedidae*; S: varieties of Grebe, *Podiceps*.
528. Steingass 1930: literally 'fish-eater'.
529. *El2*: *Streptopelia decaocto*: Collared Turtle Dove; N: Ring Dove; S: *Streptopelia soseogrisea*: *Tortorella sose et grise*.
530. This story is very similar to that told by al-Muṣṭawfī al-Qazvīnī concerning the *mārsār*, the mythical human-headed snake which made people die because they laughed so much at its sight. The snakes were a calamity sent by the King of China to the King of Egypt in retaliation for the latter's refusal to give his daughter in marriage to the

son of the former; the prime minister of the King of Egypt obtained a great number of birds called *wamang* whose cry was terribly feared by the snakes, which fled to the desert. See N: 49. The ancient myths of human-headed snakes or horses able to kill with their glance have been mingled in the Islamic period with the story of the 'Laughing Snake', *mār-i qahqaha*, probably connected with the figure of Alexander. On the subject see Carboni 1988: 108–10, pl. 8.

531. *Qabj* is identified by *El2* as Chukar Partridge and by N as Partridge. The common name for Partridge is *ḥajal* which, however, is not present in al-Qazvīnī. Therefore *qabj* probably denotes the general name for this species of bird.
532. E: general name for Lark; *Eremopterix nigriceps*: Black-crowned Finch Lark, *Ammomanes cincturus*: Bar-tailed Desert Lark, *A. deserti*: Desert Lark, *Chersophilus duponti*: Dupont's Lark, *Ramphocorys clotbey*: Thick-billed Lark, *Melanocorypha calandra*: Calandra Lark, *M. bimaculata*: Bimaculated Lark, *Calandrella cinerea*: Short-toed Lark, *C. rufescens*: Lesser Short-toed Lark, *Galerida cristata*: Crested Lark, *G. theklae*: Thekla Lark, *Lululla arborea*: Wood Lark, *Alauda arvensis*: Skylark, *Eremophila bilepha*: Temminch's Horned Lark; N: *Galerida cristata*: Crested Lark, commonest bird in Mesopotamia.
533. In Steingass 1930 this word means only 'a city, a village'.
534. E, O, M, *El2*, N: *Pterocles lichtensten*: Lichtenstein's Sandgrouse, *P. coronatus*: Crowned (Cornetted) Sandgrouse, *P. senegallus*: Spotted Sandgrouse, *P. exustus*: Chestnut-bellied Sandgrouse, *P. orientalis*: Black-bellied Sandgrouse, *P. alchata*: Pin-tailed Sandgrouse, *Fam. Pteroclididae*, *Ord. Pteroclidiformes*.
535. This folio including the Turtle Dove, Phoenix and Crane (cat. 321–3) is published in Berlekamp 2011: fig. 16.
536. E, S: *Streptopelia turtur*: Turtle Dove, *Fam. Columbidae*, *Ord. Columbiformes*; O includes in addition to E: *Streptopelia tranquebarica*, *S. senegalensis*; M: *Columba livia*: Rock Dove, *Streptopelia turtur*: Turtle Dove in Egypt (the same bird is called *shifnīn* in Iraq (see cat. 304)); N includes in addition to E: *Streptopelia decaocto*: Collared Turtle Dove (see *fākhita*, cat. 317).
537. See also the description of the Collared Turtle Dove (cat. 317).
538. This bird seems to be connected with the more complex story of the fabulous bird 'Anqā (cat. 313) which immolates itself on a fire after its chick is born. Here the story seems similar, though taken directly from classical Greek literature, without later Islamic additions and interpolations.
539. E: *Grus grus*: Crane, *Anthropoides virgo*: Demoiselle Crane, *Fam. Gruidae*, *Ord. Gruiformes*; N includes in addition to E: *Megalornis*: Common Crane; S: = *gharnūq*: *Grus*, Crane (see cat. 315). Both *gharnīq* and *kurki* denote the Crane, but in the first case the family of the bird is that of the *Ardeidae* whereas in this case it is that of the *Gruidae*. See also above, note 525.
540. E, M, S: *Numenius phaeopus*: Whimbrel, *N. tenuirostris*: Slender Billed Curlew, *N. arquata*: Curlew, *Fam. Scolopacidae*, *Ord. Gruiformes*; *Burhinus oedicephalus*: Stone Curlew, *B. senegalensis*: Senegal Thick-knee, *Fam. Burhinidae*, *Ord. Gruiformes*; O includes in addition to E: *Burhinus capensis*.
541. Steingass 1930: 'the bird Humā'. Humā: 'a bird of Eastern fable, supposed to fly constantly in the air without touching the ground, and

- looked upon as a bird of good omen, prognosticating a crown to every head it overshadows; a bird of paradise; a phoenix; a large royal eagle; a pelican'.
542. E, M, N, S: *Ciconia ciconia*: White Stork, *C. nigra*: Black Stork, *Mycteria ibis*: Yellow-billed Stork, *Fam. Ciconiidae*, *Ord. Ciconiiformes*; O includes in addition to E: *Ciconia abdimii*, *Fam. Ardeidae*.
543. N, S, Wehr 1976: Heron; the name is not mentioned in E and O; H lists twelve species of Herons: *Ardea cinerea*: Common Heron, *A. goliath*: Goliath Heron, *A. purpurea*: Purple Heron, *Egretta alba*: Great White Heron, *E. garzetta*: Little Egret, *E. gubris*: Reef Heron, *Ardeola ralloides*: Squacco Heron, *A. gray*: Paddybird, *Bubulcus ibis*: Cattle Egret, *Nycticorax nycticorax*: Night Heron, *Ixobrychus minutus*: Little Bittern, *Botaurus stellaris*: Bittern.
544. Al-Qazvīnī's text is here somewhat obscure, but we learn from Farīd al-Dīn 'Aṭṭār that this strange behaviour of the Heron is due to its love of the ocean: '[. . .] since I – / A bird, must be excluded from the deep, / I haunt the solitary shore and weep. / My beak is dry – not one drop can I drink – / But if the level of the sea should sink / By one drop, jealous rage would seize my heart.' See 'Aṭṭār 1988: 47.
545. E, S: *Alaemon alaudipes*: Hoopoe Lark, *Fam. Alaudidae*, *Ord. Passeriformes*. AM: *Alaemon alaudipes*: Bifasciated Lark. See Eisenstein 1984.
546. The plant called *alā* is described in Ibn Manzur 1955–6 as 'an evergreen plant growing in the sand'; in Hava 1964 as 'a green-leaved and bitter fruit-tree'. Neither dictionary identifies the plant in question. Hava 1964 identifies the plant called *shih* by al-Qazvīnī as 'a kind of worm-wood, broom-plant'.
547. E, O, M, EI1, N, S: general name for Vulture; *Gypaetus barbatus*: Bearded Vulture, *Gyps fulvus*: Griffon Vulture, *G. rueppell*: Ruppell's Vulture, *Torgos tracheliotus*: Lappet-faced Vulture, *Aegyptius monachus*: Black (Cinereous) Vulture. The Egyptian Vulture, *Neophron percnopterus*, belongs to the same family, but in Arabic is called *rakhama* (cat. 297).
548. See also the text on the Magpie, 'aq'aq (cat. 312).
549. The Egyptian Vulture, *rakhama*, shows the same behaviour (see cat. 297).
550. The text in the Cairo II edition is longer and does not follow the present manuscript word for word.
551. E, O, N, S: *Struthio camelus*, *Fam. Struthionidae*, *Ord. Struthioniformes*.
552. E, O, EI1, N: *Upupa epops*: Hoopoe, *Fam. Upupidae*, *Ord. Coraciiformes*. The Hoopoe is a popular bird in Islamic tradition: the Prophet is said to have forbidden its killing, hence its flesh is forbidden. It was Solomon's messenger to the Queen of Sheba and was used by Solomon on his pilgrimage to Mecca to find water. Al-Qazvīnī gives here the amusing account of the invitation of Solomon to a meal. The Hoopoe is also the leader of the birds in search of the *sīmurgh* in Farīd al-Dīn 'Aṭṭār's *Conference of the Birds*.
553. H: *Hirundo rupestris*: Crag Martin, *H. obsoleta*: Pale Crag Martin, *Riparia paludicola*: Indian Sand Martin, *R. riparia*: Sand Martin, *Delichon urbica*: House Martin, *Fam. Hirundinidae*, *Ord. Passeriformes*; *waṭwāt* is often Bat, but it is described in the text as bird living near the water. The dictionaries and EI1 give *waṭwāt* as Swallow or Martin. This identification, however, does

not seem to fit properly neither with the description nor with the illustration.

554. Steingass 1930: *bālwāya* or *balwāh*: 'a swallow'.
555. The Firefly (*yarā'a*) is not illustrated. The text describes this insect correctly as emitting a light visible in the dark.
556. The present section does not present serious problems of identification since a translation into German is available (Wiedemann 1911: 247–78), which has been used to check some problems encountered in translating the text of the London manuscript.
557. For a discussion of snakes, dragons and sea dragons see the note under cat. 92.
558. The Locust (*jirād*) is not illustrated.
559. It is a Persian word: Steingass 1930 gives 'a kind of green lizard' for the word *'azāyat*.
560. Literally, 'sun worshipper'. The meaning has been extended to the chameleon and the sunflower. See Steingass 1930.
561. Gastropods are a class of mollusc including snails and slugs.
562. Ophidians are reptiles subdivided into twelve families and a great number of genera and species. The very large size of this animal, as described by al-Qazvīnī, suggests however that he is dealing here with snakes like the Python (see also cat. 38).
563. The animal with this name (*tinnīn*) can be found at cat. 90 and cat. 92. See the note in the text of cat. 92 for the confusion of the terms *tinnīn*, *thu'bān* (cat. 332) and *hayya* (cat. 38 and the present illustration).
564. The text of the London Qazvīnī is here completed with the corresponding text of the Munich manuscript where the passage is clearer. The snake is one of the five animals 'termed metaphorically *fawāsiq* (transgressors) because of their noxiousness [...] and harmfulness, so that they may be killed in the case of freedom from *ihrām* and in the state of *ihrām* and in prayer, which is not rendered ineffectual thereby [...]' (Lane 1863–93). The *ihrām*, as opposed in the text to the word *ḥall* ('free, untied, lawful'), is 'a state or thing that caused what was before allowable, or lawful, to be forbidden or unlawful' (Lane 1863–93). The quotation from the Munich Qazvīnī is present in al-Fayyūmī's (d. 770/1369) dictionary of unusual terms (al-Fayyūmī 1978). The hadith regarding the five animals which can be killed in the state of *ihrām* is reported by Ahmad ibn Hanbal (d. 241/855): they are the Mouse, Scorpion, Snake, snarling Dog and Crow. Other traditions substitute the Kite for either the Scorpion or the Mouse. For further reading, see Canova 1990: 195–6, esp. note 30.
565. They are seven according to Ibn Hanbal, as quoted by Canova 1990: 198, note 40.
566. All earthworms, including leeches (see cat. 109), are Annelids.
567. It must be understood as its Persian name. Steingass 1930: 'a species of lizard eating poisonous scorpions, a chameleon'. Siggel 1950 identifies the *wazagh* with the *Tarentola mauretanica*, a species of Gecko.
568. Yaḥyā ibn Ya'mar al-Adwanī al-Washqī was a pupil of Abū al-Aswal al-Du'ālī and a grammarian of Basra, who became a judge in Khorasan and died about 747 AD. He was quoted by Qatada in connection with the hadith because he met Ibn 'Abbās, Ibn 'Umar and others; Qatada is therefore the likely source for al-Qazvīnī. See Dodge 1970, I: 90–1 and II: 1, 125.
569. Published in Carboni 1988–9: pl. VIB and Berlekamp 2011: fig. 53.

570. The origin of this fabulous beast is not clear. The most logical explanation is that it refers to the legend of the Yeti or Abominable Snowman living on the Himalayas, since al-Qazvīnī reports it as living in Tibet. The only 'scientific' identification attempted so far, to my knowledge, is by al-Ma'luf (1932: 156–7), who rather unconvincingly recognises in it the Mammoth.
571. Both *Fam. Muridae* and *Fam. Cricetidae* include more than 100 genera with a great number of species of Rat and Mouse spread worldwide. The House- or Roof Mouse is *Mus musculus*, the Harvest Mouse is *Mycromis minutus*, while Sand Rats are of *Gen. Gerbillus*.
572. This and the following illustrated animal, the Musk Rat, are dealt with under the text on the Mouse, of which al-Qazvīnī evidently considered them to be sub-species.
573. Wiedemann 1911: 264 reports the same name Adhfar, adding (note 2) that the Munich Qazvīnī reads 'Azfar', and the Cairo II edition 'Al-Dafar'. The place is probably imaginary as it is likely to derive from the Persian word *azfar* which means 'fragrant, strong-scented'. This place-name is present neither in al-Qazvīnī's *Āthār* (1960) nor in Yāqūt's *Mu'jam* (1866–73).
574. Al-Qazvīnī appears here to contradict his earlier statement under the Gecko (cat. 337), where Gecko (*sāmm abraş*) and *wazagh* are described as one and the same animal. In the present text, however, the two animals are clearly differentiated.
575. The wild people of Gog and Magog are already present in the Bible (Genesis 10: 2–5; Ezekiel 38–9) and in St John's Apocalypse (20: 7–8). In the Qur'an (18: 94–7) the myth is related to Alexander (called Dhū al-Qarnayn, 'The Two-horned'), who was asked to build a wall to isolate this wild and dangerous population. In medieval times, Gog and Magog were the object of much attention and were identified in turn as the Scythian tribes (the Huns in particular), the ten 'Lost Tribes' of Israel (deported to Media by the Assyrian King, Shalmaneser), or twenty-two mixed peoples (in the Pseudo-Methodius). See Graf 1883 and Anderson 1932: 18–19 and 55–8.
576. This race of people is known as *gilīm-goshān* in Persian, 'a race of men whose ears are so large that one serves them for a mattress, and the other as a counterpane' (Steingass 1930). The word *gilīm* means in fact 'a garment made of goat's hair or wool, a carpet or rug to lie down upon, a blanket'. The 'Elephant-ears' are also present in the *Iskandarnāma* (Southgate 1978: 152–3): 'They are tall as the tamarisk tree, and have two ears like the ears of an elephant. They use neither mattress nor covers, but spread one ear under and one ear over their body when they sleep.'
577. These people are obviously connected to Gog and Magog (cat. 344). It is not clear from the text whether they are one of the tribes enclosed behind Alexander's Wall or they live free near the wall. As to the location of Iskandar's Wall, the literature places it from the Pass of Dariel (the Darieli Gorge at the border between Russia and Georgia) and Derbend (Derbent in the Republic of Dagestan, Russia) in the Caucasus region (the latter confused with the Iron Gate built by Khusraw Anūshirvān c. 542 AD) to the Great Wall of China. For further reading, see Anderson 1932: esp. 19–26 and 93–5.
578. The same race of people is described and illustrated at cat. 25.

579. For the identification of this island, see cat. 27–9.
580. This race of people is also dealt with at cat. 69.
581. The same people are mentioned at cat. 40 and cat. 70–1.
582. Steingass 1930: 'A people with dog's heads and human bodies; a species of imaginary monster with the head of a dog, the yellow face of a dragon, the hair of a goat, the ears of an elephant, and blue eyes'.
583. See also the discussion of the same subject at cat. 71.
584. According to the text at fol. 35r, it is perhaps the Island of Java. See the discussion under cat. 41.
585. The reading is uncertain in both the London and the Munich Qazvīnī. This word is not found in the dictionaries.
586. Salūq was a city in Yemen. Grohmann, 'Salūq', *EI*1 reports that there was a fine breed of dog called *salūqī* especially suited for hunting gazelles, which was said to be a crossbreed between dogs and jackals. *Salūqī* dogs are still used for hunting in Saudi Arabia.
587. In Arabic *warashān*, 'Ring Dove or Woodpigeon', *Columba palumbus*, *Fam. Columbidae*, *Ord. Columbiformes*. See Viré, 'Ḥamām', *EI*2.
588. Or perhaps *rāghibī*.
589. The origin of the story as told by al-Qazvīnī seems to be ultimately of Talmudic derivation, where the bird that pierces the rock is replaced with ants. The text is the Berakhoth, as reported by Sidersky 1933: 101. According to al-Tabarī, 'Ūj is the most formidable among the giants whom Moses had to fight (De Goeje 1879–1901, I: 500–1). The giant is also mentioned by al-Tha'labī and al-Kisā'ī in their respective texts of the *Qīṣaṣ al-anbiyā*. See Heller, 'Ūdj b. 'Anaq', *EI*1.
590. A South Arabian story-teller of Persian descent born near Sana'a in 34/654–5. He is celebrated as an authority on the traditions of the *ahl al-kitāb*. See Horovitz, 'Wahb b. Munabbih', *EI*1.
591. Aḥmad ibn Faḍlān ibn al-'Abbās ibn Rashīd ibn Ḥammād was sent by the caliph al-Muqtadir billāh as his envoy to the land of the Volga Bulghārs in 309–10/921–2. His valuable report has survived and has been edited and translated into French by Canard 1958. See also the note in the text of cat. 88.
592. 'Abbasid caliph 295/908 to 320/932. See Zetterstéen, 'al-Muqtadir', *EI*1.
593. Regent and then ruler of Mosul from 607/1210 to 642/1244–5, when he became a vassal of the Mongols until his death in 657/1259. See Zetterstéen, 'Lu'lu', *EI*1.
594. The founder of the Shafi'i school of law. His life is partly legendary and real events are difficult to sift out. He was born in 150/767 and lived in Mecca. In 179/796 he took an appointment in Yemen, where he was involved in Alid intrigues. He died in Fustat in 204/820 and was buried at the foot of the Muqattam Hills. His tomb is still a place of pilgrimage and was rebuilt by the Ayyubid ruler al-Malik al-Kāmil in 608/1211–12.
595. Called *zāghsār* in Persian. Talking crows are already present in classical antiquity in the works of Pliny and Aelian, where they are generally regarded as wedding birds of good omen. They are also found in the *Romance of Alexander* (see Wolohojan 1969: 146). How the source was picked up by the Arab writers who attributed to the *zāgh* two wens and a human head is unclear. Another talking crow is present in the story of 'The Island of the Church of the Crow' (see note in the text of cat.

- 76), although it does not have a human head. See Baer 1965: 31–2 and 42–4.
596. The first lines are damaged in the London Qazvīnī. Abū Saʿīd al-Sīrāfi is quoted in the Munich Qazvīnī. Baer 1965: 31, note 13 identifies this author: 'For al-Sīrāfi see Brockelmann 1943–49, I: 115 and S. I: 174. He lived 280/893–368/969. He was of Persian origin and his father, called Bizhād, was still a Zoroastrian.'
597. Died 242/856–7.
598. The word *'ajwa* means 'pressed dates, date paste, a fine Madina date' according to Wehr 1976 and Steingass 1930.
599. For al-Birūnī, see the note in the text of cat. 54 and note 2 of Chapter 4.
600. The translation given here is a collation of the corresponding texts in the London Qazvīnī (damaged) and the Munich Qazvīnī (fol. 212). The difference between the texts is that the London codex includes both fantastic animals under the same paragraph (the very last of the codex) whereas in the Munich Qazvīnī they are described separately (fol. 212r and 212v). Asbījāb or Asfijāb is a region in Transoxiana: see Yāqūt 1866–73, I: 249. Nūḥ II ibn Maṣṣūr ibn Nūḥ ruled 366–87/977–97. See also Ettinghausen 1950: 24, note 45.

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Index

- ‘Abbasids, ‘Abbasid influence, 13–14,
 18, 64
 ‘Abd al-Rahmān ibn al-Hakam, 257
 ‘Abd al-Rahmān al-Šufī, 7, 15, 27, 55–6,
 58, 67
 al-Abḥārī, 14
 ‘Abid ibn al-Abras, 297
 Abominable Snowman, 81
 Abraham, 114
 Absinth, plant, 281, 283
 Abū al-‘Abbās, 257
 Abū ‘Ajwa *see* Human-headed Rook
 Abū Firās, 64
 Abū Hāmid al-Andalusī, 241
abū qalamūn, textile, 312
 Abū al-Qāsim al-‘Irāqī, 63
 Abū al-Rayḥān al-Bīrūnī, 57–9, 61, 107,
 233, 347
 Abū Sa‘īd al-Sīrāfī, 347
abū taḥyūn, stone, 319
 Abū ‘Ubayda, 297
 Aconite, plant, 284, 322
adab literature, 23
 ‘Ādawī, religious order, 63–4
adayya, animal similar to the
 chameleon, 335
 Adhfar, placename, 339
 Adonis, plant, 284
 Afrāsiyāb, King of the Turks, 282
 Ahlat, 70
 Ahmad ibn Faḍlān, 345
‘ajā’ib literature, *‘ajīb*, 3, 13–14, 16
‘Ajā’ib al-makhlūqāt, 1, 8, 13–14, 19–20,
 23, 55, 62, 70, 114, 126–8, 146, 148,
 175–7
 Akhtamar, church, 68
 Aksaray, 89
 Aleppo, 68
 Alexander, ruler, 49, 74, 228–31
 Alexander’s Wall, 340
 Alfonso X, King, 58
 ‘Alī, the fourth Caliph, 110
 ‘Alī Shāh, mosque, 86
 Alkali, plant *see* Soda Plant
 Almond, tree, 275
 ‘Alqam ibn Šafwān ibn Ummya, 294
 al-A‘mash, 221, 258
 amberggris, 233
 ‘Amr ibn al-‘Ās, Umayyad governor of
 Egypt, 86, 109, 111, 137, 257–8
 Anatolia, Anatolian influence, 3–4, 6–8,
 19, 48–9, 57, 59, 61, 64, 67–70, 77,
 86–7, 89–90
 Anchovy, fish, 251
 angels, archangels, 3, 7, 15, 27, 31, 49,
 52, 55–6, 62, 65, 69, 130–1, 147, 220
 Angels of the First Heaven, 222
 Angels around God, 221
 Anise, plant, 290, 293
 ‘Anqā, bird, 27, 80–1, 326–7
 Antichrist, 237
 Ape-like Jinn, 15
 Apollonius *see* Bālinās
 Apple, tree, 262
 Apricot, tree, 276
 Arab painting, 13
 Ardistan, 86
 Argo Navis, the Ship, constellation, 217
 Aristotle, 238
 Artichoke, plant, 287
‘asbār, cross between a wolf and a
 hyaena, 309
 Asbījab, placename, 347
 Asfarayin, 258
 Asyūr, fish, 234
 ‘Atā Malik Juvainī, Ilkhanid governor of
 Baghdad, 14, 20, 127, 175
atabegs, 48, 63, 70
Āthār al-bilād, 128
 Atwarān, island, 227
 Aubergine, plant, 282
 Auriga, constellation, 56
 Avicenna, Avicennian influence *see* Ibn
 Sīnā
 ‘Ayn Shams, placename, 261
 Aysū, land of, 254
 Azarpai, Guitty, 69
 Azrael, the Archangel of Death, 49, 52,
 55, 120, 147, 220–1
 Bāb al-Tilism, 68
 Babel, land of, 252
 Babel, well of, 258–9
 Badi‘e, Julie, 128
 Badr al-Dīn Lu‘lu’, *atabeg* of Mosul, 6,
 63–4, 346

- Baghdad, 3–4, 6–7, 14, 91
 Balinas, 59 290
 Balm, plant, 281
 Balsam Tree, 261
 Banana Tree, 277
 Banū al-Harīth, an Arab tribe, 298
 Banū Isrā'īl, an Arab tribe, 322, 345
 Barberini Ivory plaque, 50
 Bartā'iyl, island, 229
 Basil, plant, 266, 281
 Basra, 234, 247, 255, 276
 Bat, 'bird', 266, 317, 326
 Bāyazīd, shrine, 87
 Bear, animal, 307
 Beaver, sea animal, 253
 Bell, Gertrude, 65
 Berlekamp, Persis, 2, 14–15, 20, 126, 128
 Beyşehir, 87–8
 Bezeklik, 79
 al-Bīrūnī *see* Abū al-Rayhān
 Bishop Bird, 312
 Bistam, 87
 Bisutūn, Mount, 90, 137, 256
 black book, 'Utārid's attribute, 19, 56,
 65, 216
 Black Sea, 240–1
 black snake, 'Utārid's attribute, 19, 56,
 62, 65–6, 216
 Blinded Pygmies, people, 238, 341
Book of Agriculture, 259–60, 262–4, 267,
 274–5, 278, 282–3, 285–6, 289–90, 293
Book of the Fixed Stars, 7, 27, 55–6, 58,
 67, 147
Book of Kings *see* *Shāhnāma*
Book on Animals by Aristotle, 238
Book on the Benefits of Animals *see*
 Kitāb-i manāfi'-i hayavān
 brick-end plug technique, 111
 British Library, 29–30, 34–5, 55–6, 58–9,
 63, 92, 148
 British Museum, 83
 broken arch, 86–8, 113
 Buffaloes, animals, 226
 Bulbul, bird, 314
 Bulghār, land, Bulghārs, 306, 345
 Bulls, animals, 230
 Bunān, island, 227
bunk, a type of bark, 261
 Buqrātīs, 59

 Calendula, plant, 279
 Caltrops, plant, 287
 Camel, Bactrian, camel, animal, 27, 298,
 300–1, 310, 327, 332
 Camphor, tree, 225–6, 228, 273
 Canis Major, the Greater Dog,
 constellation, 217
 Canis Minor, the Lesser Dog,
 constellation, 217
 Caper, plant, 291
 Caracal, animal, 309
 Caraway, plant, 290
 Cardoon, plant, 287
 Carp, fish, 251
 Carrot, plant, 286

 Cassiopeia, constellation, 55
 Castor Oil Plant, tree, 265
 Catfish, 247–8
 Celery, plant, 282
 Centaurus, the Centaur, constellation,
 69, 219
 Ceuta, 243
 Chameleon, animal, 334
 Cheetah, animal, 119, 310
 Chestnut, tree, 269
 Chickpea, plant, 288
 China, Chinese influence, 5–6, 8, 45, 77,
 79, 81, 84, 111, 117, 128
 Chinese clouds, 246
 Chinese dragon, 77, 79–80, 247
Chronology of Ancient Nations *see*
 Kitāb al-āthār al-bāqiya
 Chrysanthemum, plant, 281
 Circular Fish with a Sting, 235
 Citron, tree, 260, 275
 Clove, tree, Clove tree fruit, 273
 Coconut Palm, tree, 25, 268, 277
 Collared Turtle Dove, bird, 311, 328, 330
 Colocynth, plant, 15, 288, 304
 Common Marten, animal, 308
 Companions of the cave *see* Sleepers of
 Mount Raqīm
Conference of the Birds, 85
 Contadini, Anna, 127
 Coriander, plant, 290
 Corvus, the Raven, constellation, 219
 Constantinople *see* Istanbul
 cotton, provided by a fish, 237
 Cow, animal, 302, 307
 Cow Fish, 237
 Crab, sea animal, 228, 249
 Crane, bird, 310, 327, 330, 341
 Crater, the Cup, constellation, 218
 Cress, plant, 286
 Crested Lark, bird, 329
 Crossbreeds, 15, 344
 Crow, bird, 315, 327–8
 Cumin, plant, 290
 Curlew, bird, 330
 Cypress, tree, 25, 267, 270
 Cyprus, 61

 Dabu'yūn, an Arab people, 309
 Damghan, 86
 Date Palm, tree, 278
daysam, cross between a dog and a wolf,
 344
De Materia Medica, 137
 Dhūbyān, fish, 248
 Diez Albums, 107, 112–13
 Dilhāth, a jinn, 294
 al-Dimashqī, 64
 Dioscorides, 88–9, 137, 286
Divans, 5
 Diver Bird, 328
 Diyar Bakr, province, 48
 Diyar Mudar, province, 48
 Diyar Rabi'a, province, 48
 Diyarbakr, town 4, 7, 48, 67–8
 Dog, animal, 84, 305, 309–11

- Dog-headed People, 85–7, 229, 238–9, 342
Doha Qazvīnī, 127, 129, 135, 141, 146–68
Dolphin, fish, 248
Donkey, animal, 299–300
Draco, constellation, 67
Dragon, Sea Dragon, animal, 148, 230–1, 235, 246–7, 334–5
Dugong, fish, 228
- Eagle, bird, 324
Earthworms, animals, 336
Ebony, tree, 259
Edinburgh al-Bīrūnī, 2–3, 5, 45, 93, 107, 109–12, 114, 116–17, 120, 123
Egyptian Vulture, bird, 319
Elephant-like People, 342
Elm, tree, 266
encyclopaedia of natural history, 14, 18
Equus Major, constellation, 55
Eridanus, constellation, 216
Erzurum, 61, 70, 86, 89
Eşrefoglu, mosque, 87–8
Evliya Celebi, 63
- al-Faḍl ibn Ishāq, 271
Fakhr al-Dīn ‘Isā ibn Ibrāhīm, Ilkhanid governor of Mosul, 7, 21
Falcons, birds, 226
Fālnāma, 62
Farès, Bishr, 69
Farīd al-Dīn ‘Aṭṭār, 85
Farwadijan, Festival of, 114
Fava Bean, plant, 282
Female People, 343
Fenugreek, plant, 287
Fig, tree, 263–4
Finch, bird, 312
Firdausī, 13
Firūz, King, 111, 222–3
flaming pearl, 77, 79, 247
Flax, plant, 281
floating scarves, floating ribbons, 51, 55
Flounder, fish, 243
flying figures, winged figures, 50, 56
Flying Fish, 231
folding chair, 89
Fox, animal, 305, 325
Francolin, bird, 318
Frankincense Tree, 275
Frog, 252
- Gabriel, archangel, 24, 52, 55–6, 90, 120, 147, 220, 267, 296
Galen *see* Jālīnūs
Gall Oak, tree, Gall Oak tree fruit, 93, 269, 271
Garlic, plant, 278, 285
Gaw Māhī, fish, 232–3
Gazelle, animal, 288, 302, 339
Gecko, animal, 336, 339
Gerfalcon, bird, 322
Ghāyat al-ḥakīm, 58–9, 61, 64
Ghāzān Khān, Ilkhanid ruler, 5, 65, 115, 123
ghuluww, deviation from orthodoxy, 64
Giant Bird, 70, 72, 81, 85, 117, 142, 147, 235–6
Giant from Bulghār, 345
Giant from Mosul, 345
Giant ‘Uj ibn ‘Anaq, 344–5
gilim *see* Munsuk People
Goat, animal, 302
Gog and Magog, people, 246–7, 340
Gök Madrase, madrasa, 89
gold frame, 29, 38, 92–3
Golden Oriole, bird, 323
Goose, bird, 313
Gorgon, 81, 83
Goshawk, bird, 313, 321
Gotha Qazvīnī, 92, 132, 134, 137, 141, 146–68
Grabar, Oleg, 88
Grape Vine, tree, 274
Great Mongol *Shāhnāma*, 13, 117
Grebe, bird, 328
Green Fish with a Proboscis, 235
Green Woodpecker, bird, 323
Grouse, bird, 324
Grube, Ernst, 115
Gum Arabic Tree, 261
Gunbadh-i Surkh, tomb, 86
Gurgan, 258
- Ḥabīb ibn Mūsā, mihrab, 89
Haji Kilij, madrasa, 88
al-Hajjāj ibn Yūsuf, Ummayyad governor, 259
Hamadan, 4, 256
Hanzala, prophet, 326
Hare, animal, 305, 309
al-Harīrī, 147
Harmel, plant, 287
Harran, 64
Hartner, Willy, 69
Hārūt and Mārūt, fallen angels, 258
Hasan, son of Caliph ‘Alī, 110
Ḥasan ibn ‘Adī, ‘Ādawī chief, 64
Hazelnut, tree, Hazelnut tree fruit, 269, 272
heart-shaped knot, 49, 67, 69
von Hees, Syrinx, 14, 18
Hellebore, plant, 289
Hen, bird, 305, 313, 319
Hermes *see* ‘Utārid, 59
Heron, bird, 331
Hilhal ibn al-Muhawwal, a jinn, 296
Hillenbrand, Robert, 107
Hippopotamus, sea animal, 253
Honan, 79
Hoopoe, bird, 333
Hoopoe Lark, bird, 26, 331
Horned Horse, 347
Horse, animal, 253, 299, 327
Horse-like People, 342
Houbara Bustard, bird, 315
hudaḍ, juice of the Lycium tree, 273
Hudayfa ibn al-Yamān, 267

- Hulwan, 256
 Humān, placename, 294
 Human-headed Fish, 15, 231
 Human-headed Rook, 75, 142, 346
 Human-headed Snakes, 343
 Husayn, son of Caliph 'Alī, 110
 Hyaena, animal, 119, 307, 309
 Hydra, the Dragon, constellation, 218–19

 Iblīs, the Devil, 49, 295
 Ibn 'Abbās, 222, 267
 Ibn al-'Arabī, 14
 Ibn al-Athīr, 14
 Ibn Bakhtishū', 15
 Ibn al-Faqīh, 224–5
 Ibn Ghulām al-Qūnyawī, 58
 Ibn Sīnā (Avicenna), 15, 20, 250, 259, 261, 263, 270, 281, 288, 290, 292, 334
 Ibn Taymiyya, 64
 Ibn al-Tiqtaqā, 7
 Ibrāhīm ibn al-Mahdī ibn al-Manšūr, singer, 86, 88, 90, 112, 298–9
 'ifrīt, a type of jinn, 298
 iḥrām, unlawful state, 336
 Ilābistān, spring, 109, 111, 258
 Ilkhanid painting, 8, 45, 117
 Ilkhans, Ilkhanid, Ilkhanid influence, 1–2, 4–6, 8, 13–14, 18, 20, 43, 65, 80, 92, 107, 111, 116, 127–8
 Imāmzāda Ja'far, shrine, 87
 Imāmzāda Yahyā, shrine, 86
 Ince Minareli Madrase, minaret, 89
 Injuids, Injuid manuscripts, Injuid patronage, 92, 126–8
 invisible ink, provided by a fish, 232
 Isfahan, 89, 92, 222
 Island of the Church of the Crow, 86, 241
 Island of the Dragon, 74, 230–1
 Island of the Monastery, 241
 Island of Noise, 238
 Island of the Palace, 85, 229
 Island of the Sheep, 244
 Island of the Sleep-inducing Trees and Flowers, 240
 Island of the Talismanic Statue, 88, 240
 Istanbul, 61, 241
 Istanbul Qazvīnī, 72, 80–1, 92, 127–32, 134–7, 140–1, 146–68
 Ivy, plant, 291
 Izmir, 61

 Jāba, island, 230
 Jābir Ibn 'Abd Allāh, 295
 Jackal, animal, 90, 93, 117, 304–5
 jāhiliyya, 'ignorance', period before Islam, 270
 al-Jāhiz, 247, 251, 255, 271, 310, 320, 331
 Jālinūs, 294
 Jālīta, island, 241
 Jāmi' al-tawārikh, 5, 13, 45, 93
 Jāshik, island, 233

 Jasmine, tree, Jasmine tree fruit, 273, 278
 Jassāsa, the Informing Animal, 85, 236
 al-jawzahr, the 'eighth' planet, 69
 Jazira *see* North Jazira
 Jazirat ibn 'Umar, 48, 69
 jinn, jinns, 15, 26, 31, 49–50, 74, 85–7, 88–90, 112–13, 140, 146–7, 221, 233, 294–8, 342
 Jujube, tree, 271
 Juniper, tree, Juniper tree fruit, 270
 Juvainī *see* 'Aṭā Mālik
 Juwāf, fish, 234

 Ka'b al-Aḥbar, 220, 288
 kabd, liver, 255
 kāfir, gum of the Camphor tree, 274
 Kalīla wa Dimna, 24, 91–2, 147
 Kandūlawurī, island, 233
 karkadann *see* Rhinoceros
 Kashan, 89
 Kayseri, 88
 al-Khan, caravanserai, 68
 Kharraqan, mausoleum, 62
 khawlanjān, galanga root, 264
 Khaythām, 221
 Khazars, land of the Khazars, 245
 Khidr Elias, church, 68, 87
 Khusraw Dār, tree, 264
 Khusraw Parvīz, Sasanian ruler, 256
 Kilij Arslan, tomb, 87
 Kitāb al-aghānī, 51, 53, 89
 Kitāb al-ahjār, 59
 Kitāb al-aqālīm al-sab'a, 63
 Kitāb al-āthār al-bāqiya, 107, 233
 Kitāb al-bulhān, 57
 Kitāb al-diryāq, 53, 69–70, 90–1
 Kitāb al-fakhri, 7
 Kitāb al-filāha *see* Book of Agriculture
 Kitāb al-mawālīd, 57
 Kitāb al-radd, 64
 Kitāb ṣuwar al-kawākib al-thābita *see* Book of the Fixed Stars
 Kitāb al-tafhīm, 57–8, 61
 Kitāb-i manāfi'-i ḥayawān, Kitāb manāfi' al-ḥayawān, 115
 Kite, bird, 313, 316
 Kizil Minare, minaret, 89
 knotted dragon, knotted snake, 3, 7, 56, 67–70
 Konya, 51, 56, 58, 68, 87, 89
 Korea *see* Silā
 Kriton, 59
 kundur, gum of the Frankincense Tree, 275
 Kurds, 64, 345

 Lablab, plant, 291
 Lake Van *see* Van
 Lalish, valley, 65
 Lamprey, fish, 247
 Laurel, tree, 266
 Leech, animal, 252
 Lemon, tree, lemon fruit as antidote 15, 19, 72–5, 86, 93, 111, 140, 146, 275–6

- Lemongrass, plant, 279
 Lentiscus, tree, 269
 Leopard, animal, 119, 311
 Lepus, the Hare, constellation, 217
 Lettuce, plant, 290
 Lion, animal, 306, 319
 Lobster, sea animal, 249
Logic, by Aristotle, 328
 Loyang, 79
lubān, gum of the Frankincense Tree, 275
 Lubia Bean, plant, 292
 Lupine, plant, 284
 Lupus, the Beast, constellation, 219
 Lycium, tree, 273

 Madrasa al-Sharabiyya, Wasit, 14
 Magpie, bird, 325
 Mahr ibn Hafān ibn Filān, a jinn, 296
 Maidenhair Fern, plant, 282
 al-Majriti *see* pseudo-Majriti
 Malatya, 86
 Malik Tā'ūs *see* Peacock Angel
 Mallow, plant, 289
 al-Ma'mūn, 'Abbasid caliph, 64, 75
 Man from Isfahan, 19, 70, 72, 81, 85, 117, 142, 147, 235–6
 Mandarin square decoration, 111, 258
 Mandrake, plant, 291
 Manna Plant, 283, 286
Maqāmāt, 24, 51, 88, 147
 Maragha, 4–6, 86, 107, 115
 Mardin, 4, 7, 48, 64, 67
 Marjoram, plant, 293
 Marten, animal, 119
 Martin, bird, 333
Marzubannāma, 4, 51, 93
 Ma-wan-tui, 79
 Mayyafariqin, 48
 Medlar, tree, Medlar tree fruit, 270
 Melia Tree, 260
 Melilot, plant, 288
 Melon, plant, 283
 Mercury *see* 'Utārid
 Mesopotamia, Mesopotamian influence, 3–4, 6–8, 53, 55, 63
 metalwork production, 6, 51, 56
 Michael, archangel, 52, 55–6, 90, 120, 147, 220, 288
 Millet, plant, 285
minai pottery, 49, 51
 Mi'rāj, animal, 19, 74, 231
 Mis'ar ibn Muhallhal, 256
 Mole Rat, animal, 338
 Mongols, Mongol influence, 4–8, 14, 64, 70, 80, 111, 128
 Monitor Lizard, animal, 339–40
 Monkeys, animals, 224
 Moringa, tree, 261
 Mosul, 3–7, 14, 20, 48–9, 51, 53, 63–5, 67–8, 87, 114, 128, 345–6
 mother-of-pearl, provided by a fish, 237
 Mouse, animal, 338
 Mudar Plant, tree, 117, 270
 Mugwort, plant, 282

 Muḥammad, the Prophet, 114
 Muḥammad al-Amin, master of Ibrāhīm, the singer, 298–9
 Muḥammad ibn Mas'ūd al-Hamadānī, 126
 Muḥammad ibn Zakariyā al-Rāzī, 225–7, 274, 290
 Mujāhid ibn Jabr al-Makhzūmī, 258–9
 Mulberry, tree, 263–4
 Mule, animal, 299
 Mule Fish, 243
 Mullein, plant, 292
 Munich Qazvinī, 1, 4, 6, 8, 13, 18, 53, 55–6, 70, 72, 80–1, 83, 126–7, 129–32, 134–7, 140–1, 146–68, 175–6, 216
Mu'nis al-ahrār, 92
 Munsuk People, 90, 340
 al-Muqtadir billah, 'Abbasid caliph, 345
 Murra ibn al-Ḥarith, a jinn, 297
 Mūsā ibn al-Mubarak al-Sirāfi, 227
 Mūsā ibn 'Umrān (Moses), 345
 Musk Gazelle, animal, 304
 Musk Rat, animal, 339
 al-Mustanṣir, 'Abbasid caliph, 14
 Mustard, plant, 289
 al-Musta'sim, 'Abbasid caliph, 14
 Myrtle, tree, 117, 259, 267, 275

 Nabatean Reed, tree, 273
 Narcissus, plant, 293–4
 Nard, plant, 252, 293
 Narwhal, sea animal, 254
 Nasbān, mountain, 224
 Nasnās, people with one leg and one arm, 294
 Neoplatonism, neoplatonic, 15, 20
 New York *Bestiary*, 2, 5–6, 45, 93, 107, 112, 115–20, 123
 Nias *see* Bunān
 Nightingale, bird, 312
 Nile, river, 86, 117, 137, 238, 250, 257–8
 Nilometer, 109, 111
 Nisibin, 48
 Noah, Noah's flood, 66, 345
 North Jazīra, Jazīra, North Jazīran influence, 3, 5–8, 48–9, 53, 57, 64, 67–9, 90, 128
 Nūh ibn Manṣūr, ruler of Khorasan and Transoxiana, 347
 Nūr al-Dīn Arslan Shāh I, *atabeg* of Mosul, 63

 Oak, tree, Oak tree fruit, 262, 269, 271, 280
 Old Jew, fish, 241
 Olive, tree, 267
 Onager, animal, 300
 Onion, plant, 283
 Orange, tree, 277
 Orion, constellation, 110, 216–17
 Ostrich, bird, 332
 Otter, sea animal, 255
 Owl, bird, 315

- Panjikent, 90
 Parrot, bird, 225, 314
 Partridge, bird, 328–9
 Peach, tree, 265
 Peacock, bird, 324
 peacock, 'Utārid's attribute, 19, 56, 58–9, 61–3, 65–6, 216
 Peacock Angel, 62–3, 65
 Pear, tree, 93, 274
 People with the Face on Their Chest, 230, 344
 People with Multiple Legs, 343
 People with Two Faces, 343
 Pepper Tree, 272
 Peppergrass, plant, 290
 Peregrine Falcon, bird, 313, 322
 Peroz, king *see* Firūz
 Persian New Year's Day, 222
 Pheasant, bird, 315
 Phoenix, bird, 330
Picatrix, 58–9, 61, 64
 Pigeon, bird, 291, 308, 316, 322
 Pilot Fish, 248
 Pimpernel, plant, 279
 Pine, tree, 269
 pirates, 233
 Pistachio, tree, 272
 Plane, tree, Plane leaves, 266, 289, 326, 332
 Plantago, plant, 291
 plaster-bonded brickwork technique, 85–6, 88, 111, 113
 Pliny, 333
 Plum, tree, 260
 Pomegranate, tree, 266–7
 Poplar, tree, 271
 pseudo-Majritī, al-Majritī, 58

 Qal'at Jabar, 86
 Qarā Arslan, Diyarbakr ruler, 68
 Qarmisin, 256
 Qays, island, 233
 Qazvin, 14
 Qiṭmīr, the dog of the Sleepers of Mount Raqīm, 257
qitrān, Pine tree resin, 269
 Qizil, 50–1
 Quail, bird, 321
 Quhrud, 89
 quill, Mercury's attribute, 58–9
 Quince, tree, 268
 Qumm, 87
 Qur'an, 4, 75, 298

 Rabbit, animal, 305, 325
 Rab'ī Rashīdī, scriptorium, 5–6
rā'ibī, cross between a pigeon and a ring dove, 344
 Rainbow, atmospheric phenomenon, 132, 223
 Rāmnī, island, 225–6, 341
 Raqīm, Mount, 256
 Raqqa, 48
 Ra's al-Jālūt, placename, 259
Rasā'il ikhwān al-ṣafā, 4

 Rashīd al-Dīn, Ilkhanid vizier, 4–5, 7, 107
 Raven, bird, 320
 Ray, fish, 251
 red background, 55, 90, 92–3, 113
 Red Mullet, fish, 234
 Reed, tree, 273
 Rhinoceros, animal, 27, 83–4, 226, 228, 310
 Rice, plant, 279
 Rocket, plant, 285, 290
 rod, Mercury's attribute, 58–9
 Rook, bird, 320
 Rooster, bird, 318–9
 Rose, tree, 278
 Rührdanz, Karen, 126

 Sabians, 7, 58, 64
 Sada, Feast of, 114
sadr, variety of Manna Plant, 286
 Sagittarius, constellation, 69
 Sagsār *see* Dog-headed People
 Saker Falcon, bird, 323
 Sakhsīn, placename, 306
 Sallām al-Turjumānī, 245
 saluki dog, 84, 344
 Salūqa, placename, 344
samākin, textiles, 237
 Sandalwood, tree, 269
 Sandarac, tree, 268
 Sandgrouse, bird, 329
 Šannāja, animal, 15, 26, 81, 83, 337–8
 Sareban, minaret, 89
 Sarre Qazvīnī, 69, 81, 128, 147
sawānī, a tree oil, 268
 Sawfish, 239
 Sayalān, fish, 228
 Schefer Harīrī *see* Maqāmāt
 Schmitz, Barbara, 115
 Sea Dragon *see* Dragon
 Sea Hare, sea animal, 246
 Sea Urchin, sea animal, 254
 Seljuqs, Seljuq influence, 3, 7–8, 13, 48–51, 55, 68–70
 Service Tree, 271
 Shabāb, tree, 268
 Shabdīz, Khusraw Parvīz's horse, 256
 al-Shāfī'i, 346
Shāhnāma, *Book of Kings*, 4, 13, 24, 83, 91, 116
 Shamhūrash, angel, 67
 Shark, fish, 234, 255
 Shaykh Abū Qāsim, 253
 Shaykh 'Adī ibn Musāfir, 63–6
 Shaykh Hasan al-Baṣrī, 65
 Shīqq, a jinn, 294
 Shiraz, 92, 126–8
 Shirīn, Khusraw Parvīz's lover, 256
 Siamese Twins from Yemen, 75, 142, 346
 Silā, island, 226
sim', cross between hyaena and wolf, 309
 Simpson, Marianna Shreve, 4, 92
simurgh, 81

- Sinād, animal, 15, 309
 Singer Ibrāhīm *see* Ibrāhīm, singer
 Sinjar, Mount Sinjar, 66, 68
sirdāb, underground room, 298–9
 Sivas, 58, 70, 86, 89
 Siyāvush, King of Iran, 282
 Skate, fish, 251
 Skink, reptile, 250
 Sleepers of Mount Raqīm, 256–7
 Snail, animal, 335
 Snake, animal, snakes, 27, 49, 59, 67, 148, 224, 228, 238, 244–6, 305, 315, 331, 335–6, 340
 Snake-headed Fish, 232
 Soft-legged People, 15, 239, 342
 Soda Plant, 247, 280
 Solomon, King, 26, 49–50, 53, 74, 89, 112, 221, 295–7, 333
 Soucek, Priscilla, 5, 107
 Sparrow, bird, 314, 324
 Sparrow Hawk, bird, 313
 Spikenard *see* Nard, plant
 Spinach, plant, 280
 Spiny Cytisus, tree, 265
 Spruce, tree, 262
 Squill, plant, 262–3, 280
 Stag, animal, 90
 Starling, bird, 321
 star-worshippers *see* Sabians
 Steinbock, animal, 304
 Stork, bird, 312
 al-Šūfi *see* ‘Abd al-Rahmān al-Šūfi
 Sugar Cane, tree, 273
 Sumac, tree, 268
 Sumatra *see* Zabaj
 Susuz Han, caravanserai, 56
 Swallow, bird, 119, 317
 Swallow Fish, 243–4
 Sycamore Fig, tree, 264
 Syrian Christ-thorn, tree, 260, 277–8

 Tabriz, 4–7, 86, 107, 115
 Takht-i Sulayman, palace, 80
 Tamarisk, tree, 270
 Tamīm al-Dārī, 237
Tanqsuqnāma, 5
 Taq-i Bustān, grotto, 50
Ta’rikh-i jahān gushāy, 79
 Ta-shi, Chinese name for Arabs, 84
 Thistle, plant, 280, 283
 Throne of God, 15, 131
 throne scenes, 3, 49
 Thyme, plant, 286
 Tibet, 81
 Tigris, river, 234, 251
al-tinnin, the ‘eighth’ planet, 69
tiraz bands, 55, 110
 Tokat, 61

 Torpedo, fish, 248
 Tortoise, land animal, 250, 322, 337
Tuhfat al-gharā’ib, 228, 241, 258, 330
 Tur ‘Abdin, 7, 64–5
 Turban, turbans, 110–12
 Turpentine Tree, 261, 270
 Turtle, sea animal, 250, 252, 337
 Turtle Dove, bird, 322, 329–30

 Ubāda ibn al-Šamit, 256
 ‘Uj ibn ‘Amaq *see* Giant ‘Uj ibn ‘Amaq
 Uljaytū, Ilkhanid ruler, 6
 ‘Umar ibn al-Khaṭṭāb, Umayyad caliph, 257–8, 298
 Unicorn, animal, 83, 306
 ‘Uṭarid, planet, 3, 7, 18–20, 49, 56–9, 61–3, 65, 67, 83, 129, 147, 178, 216

 Valerian, plant, 293
 Van, Lake Van, 7, 59, 61, 68
 Varamin, 86
 vegetal foreground, 2–3, 6, 23, 38–9, 41, 43, 45–6
 Violet, plant, 284
 Vulture, bird, 274, 319, 332

 Wādī al-Sind, placename, 296
 Wahb ibn Munabbih, 345
 Walnut, tree, Walnut tree fruit, 264, 269
 Wāqwāq, archipelago, 226
Warqa wa Gulshā, 91
 Wasit, 4, 6, 13–14, 126, 128
 Water Lily, plant, 292
 Weasel, animal, 93, 305
 Whale, 240
 Wheat, plant, 288
 White Stork, bird, 331
 Wild Boar, animal, 119, 306–7
 Willow, tree, 265
 winged figures *see* flying figures
 Winged Fox, 347
 Wolf, animal, 298, 305, 308
 wonders of creation, literature, 13–16, 20, 24, 55, 147, 176

 Yahyā ibn al-Aktham, 347
 Yahyā ibn Ya‘mar, 336
 Yakutiye Madrase, madrasa, 89
 Ya‘qub ibn Ishāq al-Sarrāj, 238
 Yazid ibn Mu‘āwiya, Umayyad caliph, 64
 Yazidis, 7, 19, 57, 62–7

 Zabaj, island, 223–6, 229, 341
 Zakariyā ibn Yahyā ibn Khāqān, 225
 Zanj, Sea of Zanj, Islands of Zanj, 15, 234, 238, 341–2